THE

PALAEOGRAPHY OF BRĀHMĪ SCRIPT

IN NORTH INDIA

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T. P. VERMA

THE PALAEOGRAPHY OF BRĀHM

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गुरुकुल कांगड़ी विश्वविद्यालय, हरिद्वार
पुस्तकालय

विषय संख्या 417.09542
पुस्तक संख्या V59P
आगत पंजिका संख्या
पुस्तक पर किसी प्रकार का निशान लगाना वर्जित है। कृपया १५ दिन से अधिक समय तक पुस्तक अपने पास न रखें। 69771

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417.09542 69771
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Verma, Thakur Prasad.
Palaeography of Brahmi
Script in North-India.

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417.09542
V59P
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पुस्तक-वितरण की तिथि नीचे अंकित है। इस तिथि सहित १५वें दिन तक यह पुस्तक पुस्तकालय में वापिस आ जानी चाहिए। अन्यथा ५ पैसे प्रतिदिन के हिसाब से विलम्ब-दण्ड लगेगा।

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Stock Verification-2024

69772

THE PALAEOGRAPHY OF BRĀHMĪ SCRIPT

IN NORTH INDIA

(From c. 236 B.C. to c. 200 A.D.)

R417.09542, V59P
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by

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VARANASI

[illegible] १९८३-८४

Sole Distributer
BHARAT BHARTI
VARANASI-5

Published by :
Siddharth Prakashan,
Vijaigarh House, Assi,
VARANASI-5

© T. P. Verma

R
417.09542
V 59 P

First Edition, 1971

Printed at :
The Eureka Printing Works P. Ltd.,
Godhowlia, Varanasi, India.

FOREWORD

The period between the end of the Mauryan Empire and the rise of the Guptas covered some five hundred years, during which most of India was fragmented into comparatively small kingdoms, about which our knowledge is very inadequate. The life of much of northern India was from time to time disrupted by the invasions of various foreign peoples—Bactrian Greeks, Śakas, Parthians and Kuṣāṇas—whose inroads must have caused great unhappiness and loss of life for the ordinary people of the regions over which they marched. Nevertheless this period was one of the most important and formative ones in the whole history of India.

During this time the life of India underwent many changes. Buddhism flourished, and left many of its most precious works of art and architecture. The Mahāyāna schools appeared, and began their missionary expansion. In Hinduism the new devotional cults, whose activities are reflected in such texts as the *Śvetāśvatara Upaniṣad* and the *Bhagavad Gītā*, grew and expanded their influence, the great epics were compiled and redacted in something like their present form, and the earlier Dharmaśāstras were written. By the end of the period Hindu religious belief and practice were much as they are at the present day.

This formative period was also one of close contract with the outside would. Trade with the west developed and flourished, and with it came new ideas from beyond the frontier. Contact with the Far East developed, and by the end of the period Indian culture had begun to make an impact on the life of South East Asia. In fact the period, though obscure in many particulars, and though it may have seemed a dark one to those who lived at the time, was one of great cultural development and, in many parts of India, also one of considerable material prosperity.

The art of writing was much developed in this formative age, and it is good that at last a detailed and thorough study of this aspect of the cultural history of the period has been prepared. Dr. T. P. Verma's monograph, which I am honoured to be able to introduce, minutely studies the many inscriptions of the period. He has subjected the evidence to a closer analysis than any earlier palaeographer and has put forward theories on the development of the scripts of the time which will be extremely helpful in the work of future students of the subject. Particularly interesting and important is his attempt to relate the development of the script to social and other factors. He does not study palaeography in a vacuum, but places it firmly in its general framework in the general history of the times. It is to be hoped that he will continue his studies and soon produce further monographs dealing with other periods in the history of India.

A. L. Basham
Australian National University,
Canberra.

January, 1970

PREFACE

'The Palaeography of Brāhmī Script in North India' is based on my thesis submitted for the degree of Doctor of Philosophy of Banaras Hindu University. Here an attempt has been made to trace the evolution and development of the Brāhmī script in north India from c. 236 B.C., the supposed date of the death of Aśoka, to c. 200 A.D. Considering that this time-span leaves out only the inscriptions of Aśoka, which are definitely earlier, a study of the Brāhmī script during this period should be deemed to be of paramount importance. This is the real 'formative' period of the script when increasingly greater use of writing led to a rapid evolution of the letters and, towards the end of the period, even to the distinction of possible regional styles. Our sources of study, ofcourse, have been the inscriptions engraved on stone, metal pieces, coins and seals, but still, following the old tradition, we have assumed, for the sake of convenience, the general validity of the letter forms evolved or in the process of evolving. A palaeographic study based on such restricted source material has, no doubt, its own limitations. For example, it could perhaps be said that if engraving on stone or metal or terracotta objects or coins—in short, a hard surface—was not the primary use of the script; any generalisation on the basis of such engravings can have only a limited validity. Such suspicion would be genuine, and we will also agree that real palaeographic studies can only be based on paper or similar material. But, apart from the unfortunate circumstances that such sources are simply non-existent for our period, we would like to point out, in defence of the earlier generation of Indian palaeographists and our own choosing to follow in their foot-steps, that much formal difference between the actual writing on paper and engraving on a hard surface need not be imagined; especially so, since engraving appears to have been

often a later and secondary process for which inscriptions were first written in ink on a surface to be engraved. Where, however, we have differed from older scholars is in another direction. While the early Indian palaeographical studies have generally been the study of inscriptions as sources of history and the palaeography has been confined to discussion of the origin of the script or forms of some particular letter, we have chosen to concentrate mainly on the evolution of the script as a whole in its proper cultural context.

I am deeply indebted to those scholars, whether they are referred in the following text or not, who have worked in the field of palaeography. Their studies served for me as a valuable background. The choice of a historical study of the Brāhmī script, no doubt, came with the publication of *The History and Palaeography of Mauryan Brāhmī Script* (1960) by C.S. Upasak; but, of the recent studies on the subject, I have derived much benefit from the *Indian Palaeography* (1963) by A.H. Dani. I have also derived much inspiration from *A Study of Writing* (1963, second edition) by I.J. Gelb.

A word about the Śaka era. We have accepted the current general belief that this era was started by Kanishka in A.D. 78 as a working hypothesis. However, we are aware of the difficulties in accepting this theory but believe that on palaeographic grounds there can not be a vast difference in the date of Kanishka; even if we donot accept him to be the originator of that era.

I am very much thankful to Dr. J.N. Tiwari, Dr. Nisar Ahmad, Sri R.S. Mishra, Sri Lalta Mishra, Sri Suresh Chandra Ghildiyal for their help in preparation and printing of this work in many ways. I am under heavy debt of gratitude to my *guru* Prof. A.K. Narain, who helped me in the selection of this topic for research and very generously guided me; and, it is to his valuable suggestions that the present form of the book is due.

I must express my gratitude to Prof. A.L. Basham, of Australian National University, Canberra, who not only very kindly had gone through the type-script and gave many valuable suggestions and criticisms but also graciously agreed to introduce my work to the world of scholars. My thanks are due to the authorities and workers of the Eureka Printing Works Pvt. Ltd., Varanasi, especially to Sri Amar Nath Dutt, whose close co-operation I always received.

Varanasi.
November, 1970.

T. P. V.

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ABBREVIATIONS

ABORI	Annals of the Bhandarkar Orienṭal Research Insṭiṭuṭe, Poona.
AIU	Age of Imperial Unity, Hisṭory and Culṭure of Indian People, Vol. II.
AO	Acta Oriantalia.
ASI (*AR*)	Archaeological Survey of India (Annual Report).
CAI	Coins of Ancient India by Cunningham (Varanasi).
CCAI	Catalogue of the Coins of Ancient India by Allan.
CHI	Cambridge History of India, Vol. I, ed. E. J. Rapson First Indian Reprint 1955.
CII	Corpus Inscriptionum Indicarum.
DCRI	Deccan College Research Instituṭe.
EI or Ep, Ind.	Epigraphia Indica.
GBI	Greeks in Bactria and India, by W.W. Tarn.
HPMB	History and Palaeography of Mauryan Brahmi Script, by C.S. Upasaka.
IA	Indian Anṭiquary, Bombay.
IC	Indian Coins, by Rapson.
IG	Indo-Greeks by A.K. Narain.
IHQ	Indian Historical Quarterly, Calcuṭṭa.
IMC	Catalogue of the Coins in ṭhe Indian Museum, Calcuṭṭa, Vol. I by V.A. Smiṭh.
Ind. Cult.	Indian Culture, Calcuṭṭa.
IP	Indian Palaeography by Bühler.
IP	Indian Palaeography by A.H. Dani.
JA	Jain Antiquary.
JAS	Journal of the Asiatic Society.
JASL	Journal of the Asiatic Society (Letters), Calcutta.
JASB	Journal of the Asiatic Society of Bengal.
JAHRS	Journal of the Andhra Historical Research Society.
JBBRAS	Journal of the Bombay Branch of Royal Asiatic Society.
JBORS	Journal of the Bihar and Orissa Research Society.
JBRS	Journal of Bihar Research Society.
JGRI	Journal of Ganganath Jha Research Institute.
JMU (*NS*)	Journal of the Madras University (New Series).
JNSI	Journal of the Numismatic Society of India, Varanasi.
JOHRS	Journal of the Orissa Historical Research Society.
JOI	Journal of ṭhe Orienṭal Insṭituṭe, Baroda.

JOR	Journal of Oriental Research.
JRAS	Journal of the Royal Asiatic Society of Great Britain and Ireland, London.
JRAS Bengal	Journal of the Royal Asiatic Society of Bengal, Calcutta.
JRASBL (*Num. Suppl*)	Journal of the Royal Asiatic Society of Bengal Letters, Numismatic Suppliment, Calcutta.
JUB	Journal of University of Bombay.
JUPHS	Journal of U.P. Historical Resarch Society, Lucknow.
Mem. ASB	Memoirs of Asiatic Society of Bengal.
Mem. ASI or MASI	Memoirs of Archaeological Survey of India.
MI	Mathura Inscriptions, by Lüders.
MRE	Minor Rock Edict.
MS	Monuments of Sāñchī, by J. Marshall.
NPP	Nāgarī Prachāriṇī Patrikā, Varanasi (Hindi).
PHIC	Proceedings of Indian History Congress.
PTIOC	Proceedings and Transactions of Indian Oriental Conference.
SI	Select Inscriptions, by D.C. Sircar.
ZDMG	Zeitschrift der Deutschen Morgenlandischen Gesselschaft.

TRANSLITERATION TABLE

A Ā I Ī U Ū E AI O AU AṀ ḤṚI
अ आ इ ई उ ऊ ए ऐ ओ औ अं : ऋ

KA KHA GA GHA ṄA
क ख ग घ ङ

CHA CHHA JA JHA ÑA
च छ ज झ ञ

ṬA ṬHA ḌA ḌHA ṆA ṚA
ट ठ ड ढ ण ड़

TA THA DA DHA NA
त थ द ध न

PA PHA BA BHA MA
प फ ब भ म

YA RA LA VA ŚA SHA SA HA KSHA
य र ल व श ष स ह क्ष

CHAPTER I

THE BACKGROUND

Brāhmī is the earliest known script of India which has been deciphered and read, and the earliest known specimen of this script does not date before the time of the Mauryan emperor Aśoka.[1] Further, as we shall presently see, in its earliest specimens, Brāhmī does not give the impression of having had a long history or having passed through many stages of development. This being so, and considering that we propose to trace the history of this script from as early as the late 3rd century B. C., we feel it would not be out of place to make a few observations on the origin of the Brāhmī script in India along with a brief review of Aśokan Brāhmī. Scholars in this field so far have mostly confined themselves to the evaluation of references to writing in ancient Indian literature or to negative evidences not very dissimilar in nature or to trace its ancestry from any known earlier script of the world. The problem has rarely been touched at its core. Such significant questions as why, how, in what quarters the need for a script such as Brāhmī was felt in India were never raised or answered. It is only through answers to such queries—through ascertaining the historical process of origin and development and examining the underlying principles—that we may hope to throw real light on the subject.

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[1] Cf. Upasak, C.S., *HPMB*, p. 192; and Dani, A. H., *IP*, p. 31.

Writing is an item of culture and has its origin and history in a particular cultural context. Many cultures, at one or the other stage of their development, started using the device of recording their language. But the use of writing may not necessarily be the invention of a people themselves. Sometimes existing writing systems are adopted by a people to write their language and sometimes the knowledge of the existence of such a useful device inspires a people to create a new script for their speech.

In modern times, I. J. Gelb has made the most thorough and serious study of the origin and nature of writing and the general principles of its developments.[1] By a minute analysis of the scripts of the world—ancient as well as modern—Gelb came to the conclusion that all scripts follow a certain unidirectional line of development. From origin to full evolution, a script has to pass through such necessary stages as logography, syllabography and alphabetography.[2] Whether a script is a people's own invention or borrowed, no stage of development can be skipped; that is to say that although in some cases the development may stop after a certain stage, 'no writing can start with a syllabic or alphabetic stage unless it is borrowed, directly or indirectly, from a system which has gone through all the previous stages.' Similarly, on the other hand, 'there can be no reverse development,' i. e. 'an alphabet cannot develop into a syllabary, just as a syllabary cannot lead to the creation of logography.'

Gelb has not found it necessary to minutely test his principle of unidirectional development against the Brāhmī script, but under the rigours of the same rule, he remarks, 'for that reason, it is absurd to speak of the development of Ethiopic (or Sanskrit) syllabaries from a Semitic alphabet,' and therefore, in his opinion, 'both the Ethiopic and Sanskrit writings are further developments from a Semitic syllabary, which, in turn, is a creation following the model of the Egyptian syllabary'.[1] Gelb, of course, is conscious of the difficulty of describing Brāhmī script as alphabetic or syllabic; for instance the consonant sign *ka* of Brāhmī (combined as it is with the vowel sound *a*) cannot be called an alphabetic sign, and still it could hardly be called syllabic. But it appears that he postulates the Semitic contribution to Brāhmī mainly to explain the almost complete absence of the earlier stages of this script.

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[1] Gelb, I. J., *A Study of Writing*, Chicago, 1962 (2nd Ed.,).

[2] *Ibid*, p. 201.

Elsewhere, however, Gelb has taken a different stand on this problem. While dealing with the origin of Semitic writing, he considers six possibilities in the writings of the world outside the Semitic group. The sixth, with which we are concerned here, runs : 'The forms are freely invented with new values as found in a large number of writings such as Balti, Brāhmī... etc.'[2] In this context, he also notes his disapproval of the various theories of borrowings based on superficial similarities. In his words, 'such formal resemblances between Semitic and other writings as have been brought out by various scholars can be due to nothing but accident.' The majority of scholars who have worked on the problem of the origin of Brāhmī from Bühler to David Diringer and even including Dani, had utilized such resemblances to arrive at 'fallacious results.' Recent researches and experiments have shown the futility of such attempts.[3]

It is clear from the above that while Gelb does not appear to subscribe to the monogenesis of all the scripts of the world in the usual sense,[4] he is also not completely free from it. Only, instead of looking to the Semitic alphabet for 'Sanskrit writings', or 'Sanskrit syllabary', he goes still further back to find its inspiration in the Semitic syllabary. This is a hypothesis for which he supplies no convincing argument, except probably

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1. Gelb, *op. cit.*, p. 201.
2. *Ibid*, p. 144.
3. *Ibid*, pp. 144-45.
4. *Ibid*, pp. 217-18.

the necessity of the principle of the unidirectional development discovered by him.

We feel that the problem can be looked at also from another point of view. A script can be created by an intelligent and culturally advanced people simply by the knowledge of the existence of a system of writing. Our contention is that, on this hypothesis, all the difficulties about the origin of Brāhmī script may be resolved. Further, we may also note that this pre-existing inspiring script need not have been the Semitic one, not only for the reason that Brāhmī is not derivable from any Semitic script but also because the possibility of a pre-Brāhmī script in India cannot be ruled out, at least on theoretical grounds.

On the problem of the origin of Brāhmī in particular, one has to consider the principles of 'inner development' and of 'outer development'.[1] The principle of inner development concerns mainly the phonetic value attached to the particular sign of a script. Phonetic value given to the sign also changes or evolves in the same way as the outer form of the letters evolves. But the principle of inner development is true mainly in the case of the development of the alphabet. In the case of *varṇamālā*, we find it fully developed long before the use of Brāhmī script;[2] by the time of Yāska it was perfected.

Once we take the above fact into consideration, we will not have to look very far for the origin of Brāhmī script, because a fully developed *varṇamālā* is there and at least the knowledge of the existence of writing can be presumed. We will not indulge here in discussion about this pre-existing writing, for that is immaterial here. The only thing needed for the people was to create a new script with the help of simple geometrical forms of straight lines, triangles, squares and circles etc. which can be easily learnt and remembered by the users of the system.

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[1] Gelb, *op. cit.*, pp. 251-52. I owe these terms to Gelb.

[2] L. Sarup, *An Introduction to Nirukta*, p. 55.

As put by Gelb, any formal resemblance can be due to nothing but accident, if it is not associated with the same phonetic value and on that account it is fallacious to derive the origin of one from the other. Most of the scholars who have worked on the origin of Brāhmī script did not take this fact into consideration. They failed to take into account that a script has got two elements, namely, (i) the formal (visual) element and, (ii) the phonetic element. They also failed to recognize that there is a fundamental difference between the evolution of Brāhmī and the evolution of the alphabet of the West.[1] In India, the script follows *varṇamālā* while in the West the alphabet followed the script, which is evidenced by the changes in the alphabet at many stages of its development.[2]

To the question why a fully developed *varṇamālā* of 64 or 63 letters[3] was partially adapted to a script having 45 signs only our answer is that perhaps the newly created script was mainly for the purpose of writing the Prākrit languages having many less sounds than the Sanskrit. This needs elaboration.

The sixth century B.C. has been described as 'an age of far-reaching religious reforming activity over the whole of the ancient world.'[4] Just as in Greece, China and Iran, so also in India, this period witnessed a remarkable cultural movement, embracing every aspect of life—social, political, economic, religious etc.[5] By this period in India, the tribal organisation of the society has given place to territorial units and a large number of *Janapadas* had come into being, vying with each other for supremacy.[1] Growth of towns and development of trade and commerce is another distinct feature of this age.[2] Probably money was invented during this period.[3] In the field of religion and philosophy, the age is still more noteworthy.[4] There was a very marked tendency towards doubt and dissent and free speculation. We have a mushroom growth of ascetic teachers in eastern India, all preaching anti-vedic ways of life. The vedic brahmanical tradition receives a definite set-back and in its attempt to survive it is gradually transformed.[5] In addition, many popular religions appeared which were later to change the colour of the religious history of India.[6] Further, the thought of this period exhibits this remarkable feature that it is addressed not to a select minority, but to all without any distinction of caste or sex.[7] All these developments were not mutually exclusive but part of a common cultural movement in India.[8] The changes in social life appear to go hand-in-hand with those in the realm of thinking. The social changes probably created an 'occasion' for fresh thinking and new doctrines facilitated and justified changes in social life. The evidence, on the whole, is overwhelming that here we are unmistakably in an age of a general awakening of the common people.[9] This had far-reaching impacts on the

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[1] We have no inclination to call Brāhmī *varṇamālā* an alphabet and it should be mentioned here that it is not true that the alphabet of the West is the final development of phonetic researches in the sphere of writing.

[2] Verma, T. P., *JOI*, Baroda, Vol. XIII, No. 4, p. 369.

[3] Trishashṭiḥ, chatuḥshashṭirvā varṇāḥ śambhumate matāḥ, *Pāṇinīya-Śikshā.*

[4] *The Cambridge Ancient History*, III, p. 499.

[5] See : Pande, G. C., *Studies in the Origins of Buddhism*, Allahabad, 1957, Ch. IX, where an excellent account is available.

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1. Pande, *op. cit.*, pp. 311-12.
2. *Ibid*, p. 314.
3. *Ibid.*
4. See *Ibid*, Ch. IX.
5. *Ibid*, pp. 315-17.
6. See R. G. Bhandarkar, *Vaishṇavism Śaivism etc.*, which traces the history of the popular devotional religions of India; A. K. Coomaraswamy, *Yakṣas*, pp. 1-3; G. C. Pande, *op. cit.*, p. 318 ft; Hiriyanna, M., *Outlines of Indian Philosophy*, Ch. III.
7. Hiriyanna, M., *op. cit.*, p. 87.
8. Pande, G. C., *op. cit.*, pp. 310-11.
9. Hiriyanna, M., *op. cit.*, p. 88.

social, religious, artistic, literary and linguistic history of India. We are mainly concerned here with growth in the prestige and popularity of the languages of the common people. It is a well-known fact that the *parivrājaka* teachers of eastern India during this period chose local dialects for their instructions,[1] interested as they were in bringing philosophy into the open and proclaiming it far and wide. And here, the most significant contribution is that of Gautama the Buddha. Buddha not only adopted the spoken language of his region for his sermons but emphatically denied their preservation in any sacred language, and freely gave his consent to learn them in one's own own tongue.[2] It is thus possible to imagine that the Prākrit languages directly received a great impetus as a result of the cultural movement of the 6th century B. C. in general and of the attitude of the *parivrājaka* teachers like Buddha in particular. Prākrit languages thus became vehicles of sacred truths of religions and got an honoured place in literature, and they gradually spread throughout the nation and even beyond it.

Sanskrit was the language of the higher strata of the Aryan society and the elaborate and complicated Vedic religion was the monopoly of the privileged few, who possessed a highly evolved language, difficult for the bulk of the society even to pronounce. This privileged class had a full fledged *varṇamālā* of 64 letters and most probably had some complicated script also of which no positive evidence remains.[3] In ancient times, long before the invention of printing, the art of writing was not so popular. Only a few societies possessed the knowledge of writing and even in these societies a very limited number of people must have known it. This gave immense importance to the art of writing. Now it can be imagined that if such an art falls into the hands of an exclusive monopolist group, who can order to cut the tongue and fill molten lead into the ears of those who recite or hear the sacred texts undeserved,[1] there is no hope of the knowledge being imparted to the common people. No wonder, if under the influence of a strong cultural movement as outlined above, a script, simple and precise, was created for the use of the popular language which had much fewer sounds than the Sanskrit.

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[1] See the *Age of Imperial Unity*, pp. 281-282; also of Belvalkar, S.K. and Ranade, R. D., *History of Indian Philosophy*, Vol. I (The Creative Period), p. 460.

[2] Dutta, N., *Early Monastic Buddhism*, Vol. I, pp. 130-131; Pande, G.C., *op. cit.*, p. 11.

[3] Cf. *Mudrārākshasa*, Act I, Srotriyāksharāṇi prayatnalikhitānyapi niyatamasphutāni bhavanti.

Brāhmī has its own history of development which can be compared with a tree growing numerous branches. As it is possible to trace forward the history of Brāhmī, so also it is possible to trace back its history from almost any stage. In the process of tracing back the history of Brāhmī, when one reaches the second-third century B. C., one feels that he is not far from the original source from which the Brāhmī was derived.[2] The simple primitive angular form of Aśokan script shows that it was not long before that this script was invented. The credit of its propagation, throughout the length and breadth of the country, goes to the missionary enthusiasm of Aśoka. For his edicts he selected a single medium—stone, a standard script,[3] and a definite mode of expression. All this was imperial, inspired by the king himself, and, had a uniformity throughout the empire. Thus Aśoka gave the country a standard script to start with. And here begins the real history of Indian palaeography.

We are now in a position to review the nature of Brāhmī script in the period of Aśoka.

The Script of Aśoka

In Aśokan edicts only seven vowels (*a, ā, i, e, u, o* and

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1. *Gautama*, 12.4 : quoted in *The History of Dharmaśāstra*, Vol. II, Pt. I, P. 155.
2. Verma, T. P., *op. cit.*, p. 360.
3. Upasak, C. S., *HPMB*, p. 193.

aṃ) including nasal, and 33 consonants including semi-vowels, sibilants and spirant are used. Long vowels *ī*, *ū*, *ai*, *au* are avoided but the medial signs for *ā*, *i*, *ī*, *u*, *ū*, *e*, *ai*, *o* and *anusvāra* are used. Among the consonants only guttural nasal *ṅa* is not used.

Almost every letter has a cursive variety but the standard form remains the same. One can notice the germs of subsequent developments in these varieties, which we will discuss in the proper place. Reverse forms of some of the letters are also found. Reverse *o* – ʃ – in RE Dhauli. and RE Jaugada,[1] and *dha* – ᗡ – at Dhauli, Jaugada in SRE, at Delhi-Ṭopra on PE and at Rupnath, Maskī, Erraguḍi and Gujjar in MREs [2] have been noticed. But this reverse variety of *o* is not found in later inscriptions, though the reverse type of *dha* becomes a characteristic of the later period. One may notice very peculiar shapes of many letters but all these cannot be regarded as separate varieties. These peculiarities can be attributed to the individual habits and mannerisms of the writer and, to some extent, also of the engravers.

The Aśokan inscriptions are well written. Stone was selected as a suitable medium, for it survives longer.[3] Inscriptions on pillars with smooth and highly polished surface were engraved after polishing, but for the inscriptions on rock—quartzite, trap, granite etc.—no attempt at the preparation of the surface was made. As a result the pillar inscriptions are comparatively better written than the rock ones.

The technique of engraving on stone was far advanced during this period. To engrave on the surface of a rock or a pillar, an inscription was first written by the *lipikara* or *dipikara* with the help of a longish piece of charcoal or hematite. It was due to this writing tool that the lines of the letters are uniform in breadth. Dani[1] observes that 'this device can not result in the formation of the so-called 'serifs' on the top of the verticals'. He further opines that 'Bühler was mistaken in detecting these marks in Aśokan Brāhmī'.[2] After the primary writing there followed the task of the cutter, who engraved every letter carefully and faithfully. Presumably he was an illiterate man, judged by the way he blindly follows the lines of the writer, and therefore he should not be expected to follow the writer's pen strokes. He takes liberty in chiselling the letters, that is to say he feels free to cut a certain part of a letter first and the other next, irrespective of the movement of the writer's hand. For example, while cutting *ya* the chiseller could begin with or , and then add the second hook as or .[3] This is most important from the view point of the palaeographer, whose main job is to determine the trend of the writing. And it was not the chiseller who was responsible for the formation of the letters. In Aśokan inscriptions his part was a secondary one. The writer was mainly responsible for the shape and the style of the letters. Unfortunately we are not in an advantageous position on this point, and therefore faithful reproduction of the letters and their classification into varieties on this ground can not bear much fruit. Dani is right when he says that, 'the most important point is to find the manner in which the letters were actually formed; once we discover this the shapes emerge of themselves'.[4]

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[1] Upasak, *op. cit.*, p. 52.; and Dani, *op. cit.*, p. 38.

[2] *Ibid*, p. 257 App. XXV(9).

[3] Chira-thitike siyā, *MRE*, Rūpnāth, 1.4.

Transition towards popularity : late 3rd century B.C.

After the death of Aśoka his style was continued to some extent by his grandson Devanampiya Dasaratha in Nagarjuni cave inscriptions.[5] These are three in number but identical in content except for the name of the caves. Here the verticals of the letters are strikingly reduced and a thickening tendency is also noticed in some of the letters.[1] Slanting form of *ja* and straight line horizontal medial for *o* are some traits, which can be judged to indicate ultra-modern tendencies in these inscriptions, and some of them are accepted as current in subsequent period.

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[1] Dani, *op. cit.*, p. 33.

[2] Ibid.

[3] *Ibid*, p. 33.

[4] *Ibid*, P. 34.

[5] *MASI*, No. 1, pl. I.

In these inscriptions the dental *sa* always is written like a retroflex *sha*, a phenomenon which has been observed in the Mahasthan inscription also. We venture to suggest that this can be taken as a style of the region. In Nagarjuni cave inscriptions the dental *sa* has been written like retroflex *sha*, but it is wrong to suggest that it is always replaced with retroflex *sha.*[2] Dani[3] points out that had it been intended to be *shū* the medial *ū* should have been attached to the second curve but it is to the main curve- -and therefore it should be read as *sū.* Similarly in Mahasthan also the medial *u* of *su* is attached to the main curve.[4] Here it can be pointed out that from the 5th century onwards the copper plate inscriptions of Bengal mostly dropped the form of *sha* and used only dental *sa.*[5] The general appearance of the script of the Mahasthan record is similar to that of Aśoka. Its nature also suggests that it is some official record. D. R. Bhandarkar believes it to be issued by some 'prince of Mauryan dynasty'.[6] If any conclusion can be drawn from the similarity of the use of *sha* in these two sets of inscriptions, this prince can be suggested to be Daśaratha. Barua traces its association with the Sohgaura inscription,[7] on the basis of similarity of the contents of both the records. The Sohgaura inscription is on a piece of cast bronze measuring $2\frac{1}{2}'' \times 1\frac{7}{8}'' \times \frac{1}{16}''$ weighing $5\frac{2}{5}$ *tolas* and, not on a piece of copper as generally

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1. Upasak, *op. cit.*, p. 173.
2. *Ibid.*
3. Dani, *op. cit.*, pp. 55-56.
4. Upasak, *op. cit.*, p. 182.
5. Cf. Dani, *op. cit.*, p. 130.
6. *EI*, XXI, p. 89.
7. *IHQ*, X, p. 57.

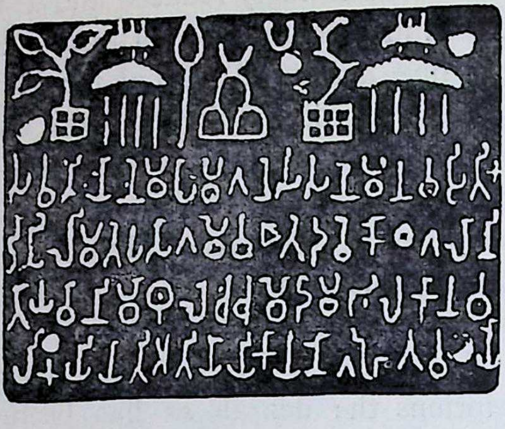
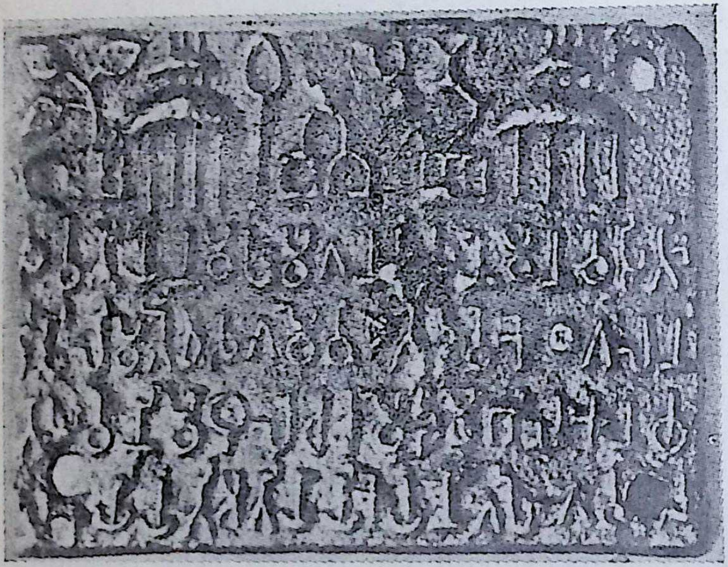


FIG. 1 Sohgaura Copperplate.



Sohgaura Bronze Plaque Inscription

believed.[1] Since 1894 several scholars have expressed their views on this epigraph.[2] In 1952, Sircar[3] examined the original record, which is the property of the Asiatic Society, and found to his surprise that 'the reading of the inscription preferred by scholars who did not examine the original contains several mistakes'. He now concedes 'that his own transcript and interpretation of the record, having been based not on the original but on its representations, are not free from errors'. Here it will not be out of place to mention that this is one of the major difficulties in the way of the students working on Indian palaeography. It is not practicable to examine each and every record in the original and therefore one has to depend on their photographic representations. But even these photographic representations are not always very dependable. They are sometimes adjusted and retouched to suit some particular point of view or reading. We have two such photographs of the inscription under discussion. One photograph is reproduced from the *JRASBL*, III, 1937, *Numismatic Supplement*, (Silver Jubilee Number) Pl. 7, Fig. 1, entitled 'Sohgaura Copperplate', which will be referred to as *NS* photograph. The second one is from *JASL*, *XVIII*, 1952, pl. I[1] entitled 'Sohgaura Bronze Plaque Inscription' by D. C. Sircar. A comparison of these two photographs reveals startling differences in the formation of individual letters. We propose to point out some of them as follows :

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[1] Sircar, D. C., Sohgaura Bronze Plaque Inscription, *JASL*, XVII, No. 1, 1952, p. 1.

[2] Hoey, Smith, Hoernle, Bühler, Barua, Jayaswal, Chakravarty etc. have devoted very little space to the palaeography of this inscription. They have mainly concentrated on other points dealing with the age of it and referred to its palaeography very casually. Sircar and Upasak have dealt with the palaeography of individual letters to a greater extent.

[3] Sircar, D. C., *op. cit.*, p. 1.

1. *Line I, 2nd letter* : There is a marked difference in the formation of the letter *va* in the two photographs.

2. *Line II, 2nd letter* : The *i* medial attached to the letter *sa* gives two different formations. In the *NS* photograph the upper end of the medial turns to the left, which is very significant from the viewpoint of palaeography. But in the *JASL* photograph there is no indication of any such stroke.

3. *Line II, 6th letter* : This letter looks something like *pa* in *NS* photograph. In Sircar's plate it has an appearance which can be read as *va*. Bühler and Sircar etc. read this letter as *va* while Fleet and others preferred to read it as *u*.

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[1] Here it is to be mentioned that while the journal is dated 1952 the plate bears a different date. It is entitled as *JASL*, XVII, pl. I. To avoid any possible confusion we will refer to this plate with reference to the date given on the Journal and not on the plate.

4. *Line II, 13th lettter* : In the *NS* photograph there is no indication whatsoever that this letter has any *u* medial sign while in the other photograph there is a suspicious suggestion of it.[1]

5. *Line II, 18th letter* : This letter *la* has no *ā* medial sign in the *JASL* photograph but in the other there is a clear *ā* medial.

6. *Line III, 2nd letter* : This letter has been variously read as *ya* and *gha* by Fleet[2] and Bühler[3] respectively. In the *NS* photograph it looks like *ya* and in the *JASL* photograph it is more like *gha*. Such differences are misleading.

7. *Line IV, last letter* : The letter is *ya*. Some scholars read an *o* medial sign attached to it and some do not recognize any such medial sign. Here both readings can be confirmed through the photographs. In *NS* copy it is *yo* while in *JASL* copy there is no such indication.

Such instances can be multiplied, and at least thirty percent of the letters appear to have been retouched unjustly. In our opinion Sircar's representation is nearest to the original one. For our table we have taken the help of this photograph.

By nature this epigraph is unique one. It is cast in a mould, believed to be 'a sand-mould of imperfect smoothness' or 'a hard or fairly hard mould'. It was rightly observed that this explains the unevenness of its surface and the meaningless dots that stand between the letters which may be taken for *anusvāras*. The reverse formation of the first letter of the second line and typical *i* medial attached to the letter *ha* of the fourth line may be explained as casting errors, though the latter error may be of some significance as we come across a similar formation in

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1. *JASL*, XVIII, p. 2.
2. *JRAS*, 1907, p. 522.
3. *IA*, XXV, 1896, p. 262.

the first letter of the Barli inscription.[1] This point will be considered in detail later.[2] Two similar cases of *ga* versus *ta* may also be casting mistakes though there is the possibility of their being linguistic usages. The first occurs in the first line which has been read by Sircar as *mahamaga-(ta)na* and the second in the last line read as *gahiga(ta)vaya.*[3] There can be no confusion about the first *ga* which is clearly a *ga* but the formation of the second one may be doubted.

The Piprahva vase inscription has a different story. For its association with the Mauryas we have no ground other than the flimsy and fickle one of palaeography. For palaeographic studies here we are in an advantageous position for several reasons.

This short inscription is scratched (not engraved) on a spherical casket of sandstone, probably with some pointed stylus. Palaeographically it can be noticed that there are three main factors which influence the formation of the letters in this epigraph and make them look more archaic than they are: (i) scratching done on a hard material like sandstone (ii) the spherical shape of the casket, (iii) the use of a pointed stylus or tool for writing.

The hardness of the stone made scratching very difficult, and sometimes affected the formation of the letters. For example, the middle vertical of the letter *ya* of *iyaṁ* is not a straight line but curved; similar is the case with the letter *te* of *bhagavate*. Such curved lines are, most probably, due to the hardness of the material. The spherical shape of the casket also influenced the formation of the letters. Engraving on a pot might have involved a risk of damage which was avoided by adopting the method of scratching. The device of scratching on a spherical object tended to make the letters long and slanting.

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1. Haldar, R. R., *IA*, 1929, p. 229.
2. Infra, p.
3. Sircar, D. C., *SI*, p. 85.

The medial sign for *u* also tends to become somewhat longer. The use of a pointed stylus sometimes made repeated scratches necessary, which resulted in some additional and unwanted strokes. Such additional lines can be observed in the photograph,[1] in the letters *na* of *bhatina* and *ni* of the word *sabhaginika* etc. But one of the obvious advantages of this scratching, for our purposes, is that we can observe the movement of the hand of the writer in the process of writing, which is otherwise difficult to notice in engraving. The movement of the hand determines the course of the development of the script.

The inscriptions from the Ramgarh hill caves are private in nature but have close affinity with the administrative record of Mahasthan because of the use of the *daṇḍa* as a punctuation mark and the use of the retroflex *sha* in place of *sa*. There are two inscriptions in two separate caves on the western slope of the Ramgarh hill.[2] The northern cave is called Sitabenga and the southern one Jogimara. The Sitabenga inscription is engraved in two lines of thin but almost equal sized letters, while the Jogimara one spreads over five lines with letters of unequal size. It seems that the scribe of the Jogimara cave inscription was a literate man and he tried to incise the record on the surface of the rock without writing it first with chalk or similar material. This is evidenced by the two lines engraved in small letters above the three line-inscription, the contents of which are the same as the first line of the lower record. Upasak rightly observes that 'perhaps finding the letters too small or the smooth surface insufficient, he gave it up and restarted the whole text once again in bold letters...'[3] It is possible that he could not estimate the space to be occupied by the text without a preparatory writing. The other evidence of this unprepared engraving is the size of the letters; letter *da* and the conjunct *kyi* of the third line are of unusually large size while the letters *ka* and *na* etc. of the same line are the

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1. Sircar, D. C., *SI*, pl. facing page 83.
2. Bloch, T., *ASI* (*AR*), 1903-4, pp. 123 ff.
3. Upasak, *op. cit.*, p. 183.

smallest. The conjunct *kyi*, for want of smoothed space, is engraved slightly below the line consequently appearing to be in the subsequent line. Also the lines are not straight.

Though the dialect of the Jogimara cave is Magadhi and that of the Sitabenga is Lena-Prakrit, both the inscriptions are contemporary.

All these inscriptions can be ascribed to the close of the third century B. C. which marks a transitional period. During this period, Brāhmī freed itself from the stereo typed formula of Aśoka's imperial mode of expression and tended towards popularity. After the death of Aśoka, disintegrating trends started functioning and regional cultural diversities, suppressed under Mauryan imperialism, were let loose. Because the successors of the Mauryas failed to keep the whole country under a single political canopy and because foreign invaders became more active on the north-western frontier of India smaller kingdoms sprang and more intimate cultural contacts with the western world became inevitable. The former factor divided India into many sub-cultural units and the latter made some units more adoptive and progressive than the others in remote areas. The centre of cultural gravitation shifted from Magadha in the east to Mathura in the west and innovations and inventions were accepted in the west more readily than in the eastern and other parts of the country.

The Age of Experiments : 2nd century B. C.

For the first time writing appeared on the coins in this period. The old technique of punching was discarded and modern techniques of incuse-stamping, as in the Negama coins from Taxila, die-striking and casting were adopted. Second century B. C. is marked by such experiments in transition and incuse-stamped Negama coins, cast square *kāḍa* coins and the coins of the early Yaudheyas, Erakanya coins, reverse-legend coin of Dharmapala which are either die-struck or cast can be attributed to this century. Sometimes these coins are attributed to the early third or even the fourth century B.C. which does not seem justifiable in the face of the fact that the Mauryas were ruling during this period and that they used the knowledge of writing very extensively. The new techniques of coinage can be attributed to Greek influence. The Besnagar pillar inscription of the ambassador Heliodorus from the court of the Indo-Greek king Antialikidas to the king Bhagabhadra in Malwa, also belongs to this period and provides valuable insight into the prevailing mode of writing which was soon to be accepted as current in this region. The inscriptions of this period form the subject matter of the third chapter.

The Period of Diffusion : 1st century B. C.

The first century B. C. is marked by the movement towards the popularisation of the art of writing. Though the Ghosundi and Bhilasa inscriptions are associated with royal names their theme is popular, that is to say, religious. The legends on the tribal and local coins of the Yaudheyas, the Arjunāyanas, and the earlier issues of Kausambi, Kanauja etc. are also evidence of this movement. The Barli inscription can also be placed in this period on the grounds of palaeography. The construction of the great stupas at Sanchi and Bharhut was in progress and the enthusiastic *upāsakas* (householders) as well as *bhikkhus* took an active part and gave donations. Beside their religious zeal the temptation of having their names engraved on the stone railings etc. contributed much towards the completion of these stupas. There is little doubt that this was a great step towards the popularisation of the art of writing. The early inscriptions of Sanchi and Bharhut belong to this period along with the coins of series II. This will form the subject matter of the fourth chapter.

A New Pen Style : early 1st century A. D.

The increasing popularity of writing introduced individual and personal elements in the script which consequently gave rise to local styles. New techniques and personal interests evolved new styles in writing and by the time the Christian era started some new elements were introduced, most probably under foreigners–the Saka Kshatrapas of Mathura. With the introduction of the edged reed pen, letters took a new face.[1] Since the time of Aśoka some simple tool had been used which gave the lines of the letters uniform breadth and through this device the so-called 'serif' on the top of the verticals could not be produced in Aśokan inscriptions. Dani notices the mistake of Bühler in depicting these marks in Aśokan Brāhmī.[2] But with the introduction of this new tool, a new style of writing emerged with consequent simplification or elaboration of shapes. From this, also taking into account individual mannerisms, common to a large group of writers in a given area, regional schools emerge. The diffusion of the knowledge of writing and the degree of the practice with this new tool differentiated one school from the other. The new tool contributed in the formation of the heads at the top of the letters which were the natural outcome of handling it in a skilled way. It also resulted in beautifully curved flourish in the formation of the medial *i*. Dani observes that in some places this technique was properly known and used, in backward regions it was only copied in a crude fashion. In the latter case the head formation appears like a dot or a sign as in Nanaghata and Arikamedu.[3] In this period the centre of gravity of cultural activities shifted to Mathura which became a great centre and remained as such under the Kushanas for three centuries after which the centre of gravity again shifted to the east under the Imperial Guptas. In the field of palaeography also the Mathura school developed great importance during the first three centuries of the Christian era.

For the convenience of study the first century has been divided into two sections. During the first half the process of

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[1] Dani, *op. cit.*, p. 52.

[2] *Ibid*, p. 32.

[3] *Ibid*, p. 53.

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the diffusion of the knowledge of writing continues and as a result of foreign contacts, the influence of the Greek palaeography and the new tool, a revolutionary change can be noticed in the inscriptions of the Kshatrapas of Mathura, and of Sanchi Series III and of the coins Series III. In the eastern region also in the inscriptions of Bharhut, the Bodhgaya railings, Pabhosa and Ayodhya this can be marked. These are dealt with in the fourth chapter.

Under the Influence of the Great Kushanas

With the advent of the Kanishka group of the Kushanas, the Mathura style of writing changed rapidly. By now several regional styles can be noticed at different centres like Mathura, Sanchi, Kausambi, Sahet-Mahet etc. That the art of writing had become very popular is clear from the fact that except for a very small number all the inscriptions of this period are by private individuals. The new pen and individual mannerisms gave new face to some letters in certain regions, which became in due course the marked style of the locality. Most of the inscriptions are dated in an era starting from the advent of Kanishka which is generally equated with the Saka era beginning from 78 A. D. There are, however, many undated inscriptions, but it is not difficult to assign them to a definite period and locality even on grounds other than palaeography. From the viewpoint of style, these inscriptions are classified and arranged into two groups. The 'Western style' includes the inscriptions from Sanchi and Mathura region, while in the 'Eastern style' inscriptions from Sarnath, Sahet-Mahet, Kausambi and Bandhogarh area are included. In the 'Eastern style' are also included Mathura inscriptions of Kanishka of the years 4 and 14, and also that of

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Huvishka of the year 33, because of the peculiar formations of letters *sa, ma, ha, la,* etc. occurring in them. A detailed discussion of these may be seen in the sixth chapter.

Gelb defines epigraphy and palaeography in the following words :

'The investigation of writing from the formal point of view is the prime domain of the epigrapher and the palaeographer. These terms are frequently interchangeable, but in good usage the two should be carefully distinguished. The epigrapher is interested chiefly in inscriptions incised with a sharp tool on hard material, such as stone, wood, metal, clay, etc., while the palaeographer studies mainly manuscripts on skin, papyrus, or paper, written in drawn or painted characters. Generally speaking, epigraphy treats of older writings; while palaeography is concerned with manuscripts from younger periods.'[1]

This definition, however, is not in accordance with the established traditions of Indian epigraphical studies of more than a century. An Indologist, whether Indian or foreigner, always takes palaeography as that branch of knowledge which deals with the formal development of individual letter signs. We too have followed this definition with one significant difference. While the old palaeographers mainly devoted themselves to answer questions like *what ? when ?* and *where ?*, we have tried to confine ourselves to *why ?* and, above all, *how ?* These are the questions of paramount importance in establishing the theoretical back-ground of a science like palaeography. Dani took the lead in this direction and we are much indebted to him for his studies.

In our study of palaeography, not much stress is laid on the standard forms of a period; rather, we have selected some forms of letters which explain their connection with corresponding forms of the previous period and also indicate the lines of future development. In this type of study, the so-called 'varieties' do not have much importance, and we regard them as superficial and unnecessary.

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[1] *Op. cit.*, p. 22; cf. also David Diringer, *The Alphabet*, p. 18.

Palaeography is not a very firm base to establish a chronological scheme without the risk of endless controversy, and, hence in our opinion its study should be done in context of the previous and future formations of individual letters, and, in terms of the factors which were instrumental in such developments.

CHAPTER II

THE PERIOD OF TRANSITION

(late 3rd cent. B. C.)

The inscriptions of Aśoka had a unity of purpose and singularity of inspiration, consequently establishing a standard for the Brāhmi script throughout his vast empire. The script of the time of Aśoka has rightly been called 'imperial' by Dani,[1] having negligible variations which can hardly be regarded as regional or local.[2] One of the obvious results of his efforts was that the script of the royal proclamations was propagated all over the country and was made accessible to all people without discrimination. This can be regarded as one of his greatest services to the nation. But as far as the evidence has come to us there seems nothing from which one can infer that the art of writing was generally used by the people during his reign. It was during the time of his successors that the script started gaining popularity. Aśoka had a definite mode of expression which was not followed by Dasaratha, but even then the inscriptions of Dasaratha can be called royal, though the efficient hand of the royal *lipikara* is lacking there. The Mahasthan and Sohgaura records are administrative in nature. The former is engraved on the traditional medium-stone while the latter is inscribed by the technique of casting which became a favourite feature for the coins of the subsequent period. There are some other records which are individual or even private in nature. The Piprahva vase inscription can be called individual while the Jogimara cave inscription is private. Thus this period is marked with the transition of the script from royalty to popularity.

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[1] *IP*, p. 50.

[2] *Ibid*, p. 48; Upasak, C. S., *HPMB*, p. 193.

General Observations

A comparative study of the reproductions of the records will reveal that though the general formation system of the individual letters is almost similar to that of Aśoka, the face of the letters differs very much from one record to another. Such differences are mainly due to the differences in the selection of the writing tool and the technique. For example, if it is a stylus, as in Piprahva vase, the letters will be longish, and further, if the medium is spherical, as of the shape of a vase, the letters may be slanting too. On the other hand, if the tool is a piece of chalk or hematite and the medium is stone, the letters may be stunted, as in the Mahasthan record, or longish as in the Jogimara cave inscription. But if the preparatory writing is done in ink on stone with a brush-like tool, the letters may be stunted and of irregular thickness due to the spreading of the ink, sometimes entirely filling the letters. This we can notice in the Nagarjuni hill cave inscriptions of Dasaratha. The writer of these records does not seem to have been very expert and neat in his performance for he did not care to put a dot in the circled to distinguish *tha* from *ṭha*.[1] We can accept the use of *sha* for *sa* in this record as a regional habit on the basis of its occurrence in the Mahasthan inscription too. The use of ink and a brush-like tool is clear from the letters *va* in *vaḍathikā* (III inscription), and *la* in *Dasalathena* (II inscription) etc., where the letters are filled. Sometimes the writer seems to be in difficulty because of this, e.g., in the letters *bha*, *da*, *a* and *ja* etc.

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[1] R. P. Chanda and D. C. Sircar read both the letters and Dani even puts a dot in the circle (his Pl. V a, 1) but I could not trace any dot in the circle from the facsimile in *MASI*, No. 1.

The process of casting gives altogether a different face to some letters; for example *ma* has its upper and lower parts detached. The technical problems of scratching letters on wet clay may have led to the unique form of *ma* in this inscription, with upper and lower parts detached. In casting, there are also chances of the letters being reversed, as *da* in line II, and sometimes only a part of a letter is reversed by mistake, e. g., the *i* medial in *hi* in line IV.

Since the inscriptions which can be assigned to this period are few in number and short in contents, it is not unexpected if all the *aksharas* of the *varṇamālā* are not there. Sometimes important varieties of letters, as compared to those of Aśoka, are also wanting.

VOWELS

With the above general observations, we now discuss the types of letters found in this period and ascertain their connections with the corresponding Aśokan forms. Beginning with the vowels we find only three, *a*, *i* and *e* in these records. The letters *a* and *i* are basic and *ā* and *e*, secondary forms. Bühler distinguishes 'eight most important' Aśokan forms of *a* and *ā* merely from their external shape. But Dani recognizes only three main varieties from the point of view of technical formation.[1]

In the first series of Dani, 'the vertical is drawn first and the two curves to the left of the vertical subsequently. The varieties originate as the two curves come closer to each other'.[2] The first variety of this series of *a* is found in the Sohgaura plaque and the Ramgarh hill cave inscriptions (III. 1. i and V. 1. i-ii)[3] where the two arms meet the vertical at two different

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1. *IP*, p. 36.
2. *Ibid.*
3. Refers to the plates at the end. First Roman numeral is column number, second Arabic numeral is for the line number and third small Roman number refers to the subdivisions of a column. The numbering of the columns is continued through the plates.

points, leaving a gap. But in the Mahasthan record both arms meet at a point (II. l. i). In all these varieties the arms are curved.

In the second series of Dani's *a* 'the curves on the left are replaced by straight lines which make an acute angle. They are drawn first and then the vertical is made. Sometimes the vertical is bent to touch the apex of the angle or a short bar is drawn to join the apex with the vertical'.[1] The Nagarjuni cave *a*s are of this type. There we have a variety where a short bar is drawn to join the apex (I. l. i) and in another variety the vertical is slightly bent to meet the apex (I. l. ii). In this record, most examples of this letter are of the second type. The *ā* medial is always placed in the middle.

The vowel *i* is used only in the Piprahva vase inscription where the third dot is placed above the two dots making the apex at the top. This form of *i* appears in REG, PEDT, MRE Sarnath, MRE Erragudi and the cave inscriptions of Barabar hill.[2] Upasak observes that these forms are probably due to slovenliness on the part of the engraver.[3] But we cannot agree with this remark in this case because the Piprahva vase inscription is a scratching and therefore an example of writing at first hand. Furthermore, if we agree with the observation that the Aśokan inscriptions were first written on stone and then the chiseller started his work, there is little chance of such a mistake. This can happen only when a copy of the text is given to the engraver and he is asked to copy it down directly on the stone. Such is not the case with the Aśokan inscriptions. In our opinion, the position of the dots was entirely dependent on the habit of the writer and no definite rule can be formulated about it, according to which we can judge that one form is correct and the other incorrect.

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1. Dani, *op. cit.*, p. 36.
2. Upasak, C. S., *HPMB*, p. 48.
3. *Ibid.*

The letter *e* occurs in the Mahasthan, the Sohgaura and the Ramgarh cave inscriptions. It is supposed to have been formed by joining the three dots of *i*, placed trianglewise, by lines.[1] In Aśokan inscriptions, this letter is found with its apex at the top, left and very rarely even at the bottom,[2] but in the standard form the apex is at the right.[3] In the Sohgaura and the Ramgarh hill records, the apex is found to the right but in the Mahasthan it is at the top in all cases, a tendency of later period. The position of the apex generally depends on the habit and convenience of the writer.

CONSONANTS

SIMPLE AKSHARAS

Gutturals

The letter *Ka* maintains its Aśokan form of a simple cross, but the vertical line is now longer than the horizontal one. This tendency can be marked in all the inscriptions assigned to this period except the Nagarjuni cave one. But in the Piprahva vase inscription, the vertical of this letter is unusually longer and slanting. The reason for this has already been discussed in the previous chapter. The medial sign for *ā* is a short bar to the right of the letter at the top. In the Piprahva vase, we come across an *i* medial attached to this letter which is formed by adding a short vertical to the *ā* medial, pointing upwards, thus making an angle (IV. 4. ii-iii). For medial *u*, a simple bar is added at the bottom of the letter pointing to the right (I. 4, ii), which is an Aśokan practice. But sometimes the bar is added slightly above the bottom point as in the Ramgarh hill cave inscription (V. 4. iii). This practice is not found in the Aśokan inscriptions[4] but we find such an example

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1. Dani, *op. cit.*, p. 37; and Upasak, *op. cit.*, p. 49.
2. Dani, *op. cit.*, p. 37.
3. Upasak, *op. cit.*, p. 49.
4. Dani and Upasak do not illustrate this form of *u* medial to *Ka* in the Aśokan inscriptions.

again in the Bodh-Gaya railing inscriptions which we will discuss in the fifth chapter. In Aśokan script, the medial *e* is shown by a short bar added to the top of the letter. This is followed in the Mahasthan inscription (II. 4. ii). In adding *o* medial also, the Aśokan practice is followed in the Mahasthan inscription, i. e., an *e* medial is attached at the top and then an *ā* medial is added to the right a little below it (II. 4. iii). In the Sohgaura plaque, however, this is reversed, i. e., *ā* medial comes at the top to the right and *e* medial is a little below to the left (III. 4. iii). This may be regarded as a casting error rather than a practice.

During this period we find two types of *kha*, with a dot at the bottom of the hook or a circle in place of it, both prevalent in Aśokan script. The first example is met with in the Mahasthan inscription (II. 5. i) and the second one in the Ramgarh cave inscription (V. 5. i). In the Mahasthan example the *i* medial is a cursive one.

The letter *ga* is almost everywhere of the angular variety. In the Nagarjuni cave it seems to have a rounded top but this may be due to the use of a peculiar writing tool. Its *o* medial also seems to be a single horizontal line extending to left and right but both the strokes are clear (I. 6. i.).

The reading of the letter *gha* in the third line of the Ṣohgaura plaque record is disputed. Fleet,[1] Barua[2] and Jayaswal[3] read it as *ya*. In the *NS* photograph this letter clearly reads as *ya*. D. C. Sircar also accepted this reading in his *Select Inscriptions*,[4] but after examining the original record he rejected this and accepted[5] Bühler's[6] reading of the letter as *gha*. We also accept this reading and have reproduced this letter from the photograph given by Sircar in *JASL*, which looks like— —(III. 7. i). This is a standard Aśokan *gha*.[1]

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[1] *JRAS*, 1907, p. 522.

[2] *IHQ*, X, p. 54.

[3] *EI*, XXII, p. 1.

[4] P. 85 and fn. 3.

[5] *JASL*, XVIII (1952), p. 2.

[6] *IA*, XXV, 1896, p. 262.

Palatals

Among the palatals, *cha*, *chha* and *ja* are met with. The most frequent type of the letter *cha* is of the Aśokan form, having a small semi-circle to the left of a straight vertical line. In one instance, in the Nagarjuni cave records, the vertical is very short (I. 8. i). The *u* medial is shown by extending the vertical downwards (III. 8. ii). The *anusvāra* in this letter is placed near the top to the right and is always shown by a dot.

The last letter of the third line of the Sohgaura plaque has variously been read by Bühler as *chha*[2] and by Fleet as *va*.[3] Sircar first supported Fleet's reading[4] but in his *JASL* revision, he accepts Bühler's reading as correct.[5] In the *NS* photograph, this letter is retouched to make a *va* but in the *JASL* plate it is a circle appended to a vertical line which extends into the circle, tending to bisect it (III. 9. i).

The letter *ja* is written in two ways in the Nagarjuni cave inscriptions. The first formation is something like two semi-circles opening to the right and placed one upon the other (I. 10. i). This is most common in Aśokan Brāhmī. The second variety is a cursive one formed in a single attempt of the pen, making three curves, the middle curve opening to the left (I. 10. ii). It is not possible to accept Upasak's view that this shape emerged owing to the carelessness of the engraver, who, when he 'failed to place the two semi-circles one upon another, joined them by a small curve'.[6] In our opinion such forms can emerge out of the writer's convenience.

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1. Upasak, *op. cit.*, p. 61; and his chart following p. 318.
2. *Op. cit*, p. 262.
3. *Op. cit*, p. 522.
4. *SI*, p. 85.
5. *JASL, XVIII*, p. 2.
6. Upasak, *op. cit.*, p. 66.

Linguals

Only two linguals have been found used in the inscriptions assigned to this period. *Ṭha* is a perfect circle in which *ā* medial is attached to the right in the form of a small bar (II. 11. i) and the *e* medial is a small bar to the left (I. 11. i).

The letter *ḍa* in Aśokan Brāhmī is represented with a horizontal line with two vertical strokes at either end, the left one pointing downwards and the right pointing upwards. In the Mahasthan record *ḍa* (II. 12. i-ii) is comparatively smaller in size like *ka* and *ga*. In the Nagarjuni cave example this letter shows a cursive hand (I. 12. i).

Dentals

Among the dentals, all the five letters are found in these records. The letter *ta* is written in several ways. In the Piprahva and Ramgarh records, it is formed from a straight line to the middle of which another short stroke is added at an angle to the right pointing downwards. In the Piprahva examples, the main line is always slanting (IV. 13. i-ii) and at one place it is not a straight line (IV. 13. iii). On the contrary, in the Ramgarh records the main line is strikingly perpendicular (V. 13 ii-v). Another variety of this letter is formed by appending an angle just below the vertical- ⋏ -, as in the Mahasthan (II. 13. i-iii), the Sohgaura (III. 13. i-ii) and the Ramgarh hill cave (V. 13, i-vi) records. Another sub-variety is formed when the angle is cursively drawn into a curve - ᕱ -, which can be found in the Nagarjuni cave (I. 13. i), the Mahasthan (II. 13. iv) and the Sohgaura (III. 13. iii) inscriptions. A peculiar variation of this has been noticed in the Nagarjuni cave records where the left curve of the angle takes one more curve (I. 13. ii). The Aśokan mode of adding medials is followed here. The medial sign for *i* is cursive in some cases, as in the Mahasthan and Sohgaura examples and sometimes it is angular, as in the Piprahva and Ramgarh records.

The letter *tha* is a circle with a dot in the middle. In the inscriptions of Daśaratha in the Nagarjuni caves, the writer seems careless (or helpless due to the tool used for writing ?) about the dot in the circle. In the letter *the* of the word *'Dasalathena'*, there is an inclining projection inside the circle which may have been intended for a dot (I. 14. i), but in other places there is no dot at all. For example, there is no dot in the letter *thi* of the word *vaḍathikā* of the record of the third cave (I. 14. ii). In this letter the *u* medial is a short line appended to the bottom of the letter (III. 14. i).

The letter *da* is of the round variety (as opposed to the angled one) made up of a semi-circle, open on the left, with the addition of two short varticals at either end (II. 15. ii and V. 15. i). This could be written in a single movement (I. 15. i and IV. 15. i). Sometimes peculiar shapes also emerge when written hurriedly (I. 15. ii). In the Nagarjuni records this letter is attempted in a single stroke along with medial *i* (I. 15. iii-iv).

There is some dispute among scholars regarding the reading of the letter *da* of the second line in the Sohgaura plaque inscription (III. 15. iii). This has been read by Bühler as *ḍa*[1] which he thinks to be of Kalsi type.[2] But Sircar disagrees with this view and in his opinion 'it has no resemblance with the Kalsi *da* with rounded back'. On the contrary, he found 'in the original a clear *da* of Bhattiprolu type, that is to say, with the central curve open towards the right instead of the left'.[3] He further observes : 'As the other cases of *da* in this record is (*sic*) of the regular form, this reverted (*sic*) form is possibly to be attributed to the defect of the mould wherein the plaque was cast (cf. the forms of the letters in the legend of the coin of Dharmapāla from Eran)'. In our opinion, there is no necessity

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1. *IA*, XXV, 1896, p. 262.
2. Cf. Bühler's Chart, *Tafel* II, *column* III. 1. 20.
3. *JASL*, XVIII, 1952, p. 2,

of equating this form to any other form of *da* in any inscription. If it could be understood to be a mistake in the preparation of the mould in which the plaque was cast, it may as well be assumed that this is a regular type of *da* with its opening towards the left and by mistake or negligence it was reversed. There is no doubt that this epigraph is very carelessly prepared and many cases of careless formation of the individual letters—reversed letters and medials, omissions and later insertions—may be marked. Besides this reversed *da*, we have already noticed a reversed *ko* in which the medial *ā* sign is placed at the top to the right and *e* sign is placed a little below the top to left, like— ŧ. The correct form can be obtained by simply reversing it— 𑀓𑁄 .The same fault is repeated in the letter no. III. 17. iv too, which also can be reversed to the correct form without any deformation of the letter. In the inscriptions of the following period we find two such examples, letter *so* in the Sanchi series I (IX. 38. V) and the letter *ko* in the Sanchi Series II (X. 7. ii). which are obviously mistakes. An example of reversed medial sign *i* in the letter *hi* of line four of the Sohgaura plaque has also been noticed and will be discussed later.[1] We can point out one example of later insertion of a letter also. In the first line the last letter is a small sized *ka*, which is possibly a later insertion.

The letter *dha* resembles the Roman capital letter D and is written in two strokes. First a vertical straight line is drawn and then a semi-circle that joins the lower and the upper ends with its curve to the right (IV. 16. i-ii).

The letter *na* is made of two straight lines. A vertical line touches a horizontal one in the middle by its lower end— ⊥ . Usually both lines are approximately of equal length, but sometimes the vertical is longer than the horizontal one (IV. 17. i & v). In the Piprahva record the vertical does not always touch the horizontal line at a right angle (IV. 17. ii, iv & vi). Very rarely the vertical is shorter than the horizontal line

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[1] *Infra*, p. 38.

(V. 17. i). In this letter the medial for long *ū* is shown by extending the vertical below the horizontal line and adding another stroke to the right end of the horizontal line pointing downwards– 𑀦𑀽 (V. 17. iii).

Labials

The letter *pa* is drawn like a fish-hook in which the right vertical is shorter (II. 18. i). But a tendency of equalising the verticals can be marked in some records (I. 18. i & V. 18. i) and this became a feature of the subsequent period. The *u* medial is shown through a short stroke attached to the bottom of the hook[1] (IV. 18. i & II. 18. iii) and the *i* medial is of usual Aśokan type (I. 18. i & II. 18. ii) written hurriedly.

The letter *pha* occurs as a conjunct in the Sitabenga cave inscription of Ramgarh hill which we will discuss later. This letter is formed simply by curving the right arm of the letter *pa* inside, as usual with the Aśokan *pha*.

There is only one type of letter *ba*, which is written like a rectangle (V. 19. i), and the *u* medial to it is the usual appended stroke at the bottom of the letter (IV. 19. i).

The letter *bha* has very often been regarded as one of the key letters for tracing the development of the script because it is very susceptible to change in current writing. In the Aśokan Brāhmī this letter is drawn by joining the tops of two short vertical lines by a horizontal one protruding to the right from which another short vertical shoots upwards— 𑀪 . This is the most common type of *bha* in the Aśokan inscriptions, and was retained in this period also (IV. 20. ii-iii). But sometimes upper and the lower verticals tend to form a straight line ɗ (IV. 20. i & V. 20. i). However, the Sitabenga *bha* in the Ramgarh hill inscription (V. 20. i) is somewhat cursive, and was incorrectly read by M. Boyer as *dha.*[1] These are the two main varieties. Other variations are formed by individual mannerisms and personal habits of drawing one part of the letter first and the other afterwards. As we notice in the Nagarjuni caves (I. 20. i-iii), first a rounded *ga*-like formation is drawn and then the upper horizontal line is extended to the right and turned upwards in a single stroke. To add a long *ū* medial, first a horizontal bar is added to the right of the lower right vertical making a right angle and then another stroke bisects the angle— (V. 20. ii). *Ā* (V. 20. i) and *i* (I. 20. iii) medials are formed in the usual way though the *i* medial is a somewhat cursive one in the latter example.

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[1] It is strange that Upasak notices *pi* instead of *pu* in the Piprahva vase inscription and illustrates a peculiar *i* medial to it— ᑕ , which turns to the left at the upper end; C. S. Upasak, *op. cit.*, p.176.

The letter *ma* is of only one variety, i. e. a complete circle with a crescent upon it (V. 21. i). But in the Sohgaura inscription, the crescent is always detached from the circle (III. 21. i-v). The medial sign for *ā* is a short bar added to the right arm of the crescent (II. 21. i) and the medial for *e* is a short bar added to the left arm (III. 21, iii). For the *o* medial short bars are added to both the arms (III. 21. iv).

Semi-Vowels

Dani[2] observes two basic forms of *ya*, the crescentic one and the segmented one. The crescentic form of *ya* is made by drawing a vertical to the middle of the arc of a circle – . This we find in the Sohgaura (III. 22. i-iii) and in the Nagarjuni cave (I. 22. i-ii) inscriptions. However, in later records there is a tendency towards shortening the middle vertical and equalising all the arms. This tendency is met with in the Nagarjuni cave inscriptions. There is an angular variety of this basic form which we see in the Ramgarh inscriptions (V. 22. i-vi). This is sometimes called the wedge-shaped variety. The second basic form is drawn by adding two small arcs, on either side of the base of the vertical— (II. 22. i-iii and IV. 22. i-ii). In the case of the Piprahva vase inscription, the middle vertical of *ya* is not a straight line (IV. 22. ii), but this can be treated as an inaccuracy in the shape of the letter resulting from the different medium. The medial for *ā* (II. 22. ii, III. 22. ii and V. 22. ii), *i* (II. 22. iii, III. 22. iii and V. 22. iii), *e* (V. 22. iv), *o* (V. 22. v) and *aṁ* (V. 22. vi) are in the usual Aśokan fashion.

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[1] *ASI*(*AR*), 1903-4, p. 124.

[2] Ḍani, *op. cit.*, p. 42.

The letter *ra* is found only in the Ramgarh hill cave inscription and that is of the serpentine vertical type. The medial sign for *ā* is attached at the top of the letter (V. 23. i), while the *u* medial sign is added below not at the tip but a little above it (V. 23. ii).

The letter *la* is also of the usual Aśokan type, in which the left arm is shorter than the right one (II. 24. iii, III. 24. i-iii, IV. 24. i-iii and V. 24. ii-iv) but in some cases a tendency towards equalising the arms is marked (I. 24. i and V. 24. i). The medial sign for *ā, u, i, e* and *aṁ* are in the usual Aśokan style but in some cases of *i* medial a cursive hand is visible (I. 24, i & IV. 24. iii).

The formation of the letter *va* is a simple one, i. e. a complete circle appended to a short vertical line. This letter is found used in all the records of this period selected for study. In the Sohgaura plaque inscription, the sixth letter of the second line is of disputed reading. What Bühler read as *vasagame*[1] (Sk. *vaṁśagrāme*), Fleet was inclined to read as *usagame.*[2] In *Select Inscriptions*, Sircar accepted the possibility of both readings.[3] But now, after examining the original plaque, he thinks it 'beyond doubt that the first of these four letters must be read as *va* and cannot be *u*'[1] (III. 25. ii). The same form of *va* can also be noticed in the Nagarjuni cave inscription (I. 25. ii). One can see Bühler's chart (Tafel II. IX. l. 36) for this form of *va*. The simple type of *va* is to be seen in the Nagarjuni cave, Sohgaura, Piprahva, Mahasthan and Ramgarh hill cave inscriptions.

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[1] *IA*, XXV, 1896, p. 262.

[2] *JRAS*, 1907, p. 522.

[3] P. 85.

Sibilants and *Ha*

The Jogimara cave inscription at Ramgarh hill is written in the Māgadhī language and, in its exclusive use of *śa*, is more closely connected with the Māgadhī of the grammarians than the Māgadhī of Aśoka.[2] This type of *śa*, having the additional stroke in the left leg— ʌ , very rarely appears in the Aśokan inscriptions, e. g., in the REK.[3] The medial sign for *i* (V. 26. i) is a cursive one, and the sign for *e* (V. 26. iii) is correctly attached. To make the sign for *u* the right leg of the letter is slightly curved outwards (V. 26. ii) which is a tendency of the later ages.

It is generally believed that in the Nagarjuni cave inscription of Dasaratha 'no dental *sa* is to be seen, as it is always replaced with the retroflex *sha*'.[4] R. P. Chanda reads only *sha* in these inscriptions,[5] while D. C. Sircar arbitrarily reads both *sa* and *sha*.[6] Here it must be noticed that all these letters are of the same formation and they should be read either as *sa* or as *sha*.[7] In the Mahasthan stone inscription we find both formations (II. 27. i-vi), which in the Aśokan inscriptions could have been read as *sa* as well as *sha*. C. C. Dasgupta observes that this inscription 'shows for the first time that in the Maurya period two forms of Brāhmī *sa* were prevalent—one which looks like the usual Aśokan *sa* and the other like an Aśokan *sha*.'[1] We agree with this explanation but with the slight amendment that the inscription should be dated to the late Mauryan period. Though there is a little difference in the formation of these two letters, there is a test from which one can judge which letter it was intended to be. Dani[2] and Upasak[3] both agree, though in different contexts, that if it is meant to be a *sa*, the *u* or *ū* medial should always be added to the primary hook— or , but if it is intended to be a *sha*, the *u* or *ū* medial should be attached to the secondary hook— or .[4] On this test, the *sha*-like formation must be *sa* for, we notice *su* in the Mahasthan inscription (II. 27. v) and *sū* in the Nagarjuni cave inscription (I. 27. ii) where the *u* and *ū* medials are attached to the primary hook. Thus there can be little doubt that these forms should be read only as *sa* and not *sha* as read by the earlier scholars. As both the records come from the same region, this confusion can be attributed to the peculiarities of regional pronunciation. In the Sohgaura plaque, the secondary hook of *sa* is added in a peculiar way (III. 27. ii-iii) and similarly in the Piprahva vase inscription, the second hook is a downward extension of the vertical (IV. 27. ii).

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[1] *JASL*, XVIII, 1952, p. 2.

[2] *ASI* (*AR*), 1903-4, p. 124.

[3] Upasak, *op. cit.*, App. XXXVI (4).

[4] Upasak, *op. cit.*, p. 173.

[5] *M. ASI*, No. 1, p. 16.

[6] *SI*, pp. 79 – 80.

[7] Cf. pl. 1 in *M. ASI*. No. 1.

The letter *ha* is written like a reversed *la*. In some cases the bar at the right arm is at the tip of the vertical (II. 28. i & III. 28. i-ii) but sometimes it is a little below it as in the Sitabenga inscription of the Ramgarh hill, while in the Nagarjuni cave inscription of Dasaratha this horizontal bar is near the bottom of the letter (I. 28. i). In these two inscriptions, a tendency of equalisation of the arms is marked. The medial *i* sign in the

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[1] Dasgupta. C. C., *Ind. Cult.* Vol. III, p. 208 quoted in *The Development of Kharoṣṭhī Script*, p. 25.

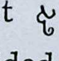
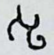
[2] Dani, *op. cit.*, pp. 55—56.

[3] Upasak, *op. cit.*, p. 182.

[4] *Ibid*, p. 110.

Mahasthan and the Nagarjuni records is cursive, but in the Sohgaura plaque it is particularly unusual (III. 28. ii). This sign is attached in a reversed manner, opening its curve to the right. Obviously this is a mistake in the preparation of the mould, but it is an interesting coincidence that in the Barli inscription the first letter, usually read as *vī*, also has the *ī* medial curved to the right. There it is read as long *ī* while in the Sohgaura plaque it is read as short *i*. If this reading of the Barli inscription is accepted as correct and if it could be applied to the Sohgaura instance also, the implications of this reading will be far greater. Firstly, then it should be read as *gahītavaya* instead of *gahitavaya*. This reading is nearer to its Sanskrit original *grahītavyam*. Secondly it will mean that in this inscription long vowels are also used, though their apparent absence has been used by the scholars in favour of this inscription being earlier. But such conjectures are hardly sound, as the reading of the first letter of Barli record has been doubted by Sircar[1] who is also supported by Dani,[2] and the date of this inscription on the palaeographic and other grounds has been brought down to the first century B. C. We will discuss this inscription in the fourth chapter.

COMPOUND AKSHARAS

The conjuncts are used only, in the Ramgarh cave inscriptions. In the Jogimara cave of Ramgarh hill, we find the conjunct *kyi* written correctly with a cursive medial for *i* (V. 29. ii). But in the Sitabenga cave inscription, the conjunct  is read as *spha* by T. Bloch,[3] the second letter *pha* being added to the secondary hook of the letter *sa* (V. 29. i). The correct form should have been like—  . Dani,[1] however, doubts this reading of Bloch.[2]

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[1] *JBRS*, 1951, p. 35. Sircar suggests a conjectural reading of this letter as *dva* which can not be accepted as *da* with an opening to the right is not the practice of this period except at Bhattiprolu.

[2] Dani, *op. cit.*, p. 54.

[3] *ASI* (*AR*), 1303-4, p. 124.

The so-called conjuncts of the Sohgaura plaque inscription are very interesting. There are seven symbols at the top of this plaque which have variously been explained, but we are concerned here with only two symbols which have been sometimes read as conjuncts.[3] The first one is a usual crescent-on-hill symbol which is generally found on silver punch-marked coins. This sign is also found on the base of a Kumrahar pillar and on many other antiquities[4] believed to belong to the Mauryan period. Jayaswal reads it as the monogram of Chandragupta Maurya. He takes the top crescent (III. 29. i) as *Chandra* and the remaining hill-like combination for *gutta*; the upper loop for *ga* — ∩ and the two lower loops— ∩∩ for double *tta* making it *Chandragutta*. But here it may be pointed that while Jayaswal takes *gutta* as letters of the Brāhmī script he presumes that the crescent, a symbol, stands for Chandra, which is a peculiar combination of writing and is hard to agree with. Similarly there is another symbol which resembles the Brāhmī *ma* (III. 29. ii), the upper crescent being separated from the lower circle. The upper ends of this symbol are slightly thick, which leads Jayaswal to think it to be the monogram for *moriya*. But the hypothesis of Jayaswal seems conjectural and far-fetched, as this symbol occurs on Indian coins spread over a vast span of space and time.

Concluding Remarks

When we review the palaeography of the inscriptions selected for the study of this period, we find on the whole that these are varied in nature and technique and we also notice much difference in the formation of the individual letters. From the point of view of development, some are more advanced and cursive while others are more primitive and angular. The Piprahva vase record falls in the later category while the inscriptions of Dasaratha exhibit advanced tendencies or later characteristics more clearly than any other of the group. The equalising tendency of the verticals in the letters *ha*, *la*, *pa* etc. and the cursiveness resulting from the attempt to write the letters *ji* and *di* in a single stroke, as also the rounded forms of *bha* and *ga* should normally have been excellent pointers to the still later dating of this record. But as the inscription bears the name of Dasaratha, the grandson and successor of Aśoka, we can only label these as features of the time or as indicators of future trends. The letters of the Sohgaura record have their own face because they are cast. Similarly the inscriptions in the caves of the Ramgarh hill have a different look. As we have discussed earlier, the Piprahva vase bears a peculiar angular face and the Mahasthan record is strikingly similar in appearance to some of the inscriptions of Aśoka. But in spite of these differences, there is a unity of appearance and formation which links these inscriptions to a well defined period of time.

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[1] Dani, *op. cit.*, p. 55.

[2] *ASI* (*AR*), 1903—4. p. 124.

[3] Jayaswal, K. P., *EI*, XXII, p. 3.

[4] *ASR*, 1912-13, p. 78, pl. XLIX; *JRASBL*, III (1937), *Num. Suppl.*, Pl. VII-3.

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CHAPTER III

THE PERIOD OF EXPERIMENTS AND FOREIGN CONTACTS

(200 B.C. to 100 B.C.)

The Background

The second century before the birth of Christ is important from the view point of our study for two things : (i) the foreign influence was being felt more emphatically on the N.W. frontiers of India; and (ii) small native states emerged as the central authority of Magadha weakened. Though the Śuṅgas tried to keep the inherited empire intact, very soon they were no better than the petty local states. Independence gave the states authority to issue coins and experiments were being undertaken to improve the technique. As a result, first came the cast coins. The earliest cast coins are probably those uninscribed ones which come from Ayodhya,[1] Eran,[2] Kauśāmbī,[3] Mathura,[4] etc. The inscribed cast coins came later, and next came the art of stamping from a die which Rapson observes to 'have been known at Taxila at an earlier period than elsewhere in India'.[5] 'The earliest specimens are struck only on one side, and by a method peculiarly Indian, according to which the metal was stamped while in a semi-molten state, with the result that the impression of the die was left enclosed in a deep incuse square'.[1] The coins minted by this method were found from Mathura,[2] Tripuri[3] and Pañchāla region[4] etc. The next stage in the development is the double die system.

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[1] Allan, *CCAI*, p. lxxxix.

[2] *Ibid*, p. xci.

[3] *Ibid*, p. xcvi.

[4] Rapson, E. J., *IC*, p. 14.

[5] *Ibid*.

The experiments were not only in the field of technique of coining but the revolutionary step was also taken of inscribing legends on them. Most probably, the inspiration for this was taken from the inscribed Greek coins.[5] The inscribed cast coins, assignable up to the end of the third century B.C., are found in an area extending from Taxila to Eran in Madhya Pradesh. The invasion of Northern India by the Yavanas during the first part of the second century B. C. is well known.[6] Therefore, the Greek inspiration, if not influence, on the earliest inscribed coinage of India cannot be denied. Though the technique of casting inscribed metal pieces[7] was not new in this period, the idea of inscribing the name of the ruler,city or guild on currency materialized for the first time; and experiments with the script in preparing moulds and incuse-stamps etc. were made. The superior craftmanship of the Indo-Greek coins is evident in the Taxila coins of Agathocles and Pantaleon. On the other hand, the Negama, Kāḍa and other cast coins are clearly poorer and sometimes defective also. The reversed lettering on the coin of Dharmapāla of Eran and the reversed *sa* in some Kāḍa coins are examples of defective lettering.[1] These will be discussed in the present chapter.

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[1] Rapson, E. J., *op. cit.* p. 14.

[2] *Ibid*. p. 13.

[3] *Ibid*, p. 14.

[4] *Ibid*.

[5] Cf. D. C. Sircar, *The Age of Imperial Unity*, p. 159; but he observes that 'even the earliest inscribed coins do not appear to be earlier than the Besnagar inscription of the end of the second century B. C.'; and thus he is inclined to attribute the inscribed coins not earlier than the first century B. C. But as it is clear from the accompanying tables VI and VII, the palaeography of some of the coin legends is earlier than the letter forms of the Besnagar inscription.

[6] Narain, A. K., *IG*, pp. 82 ff. and other evidences discussed therein.

[7] For example the Sohgaura plaque, already discussed in the previous chapter. May it be suggested that the Sohgaura plaque was also inspired by foreign influence ?

Among all inscribed coins, the Negama coins of Taxila are undoubtedly the earliest. Rapson is inclined to date the Negama coins 'as early as the beginning of the fourth century B. C.'[2] Bühler was in favour of placing them in the third century B. C.[3] and Cunningham attributes them to 'an early period of Greek rule.'[4] These coins were found at Taxila along with the coins of Agathocles and Pantaleon,[5] a fact which helps the dating of these coins. A. K. Narain dates the two kings in circa 180–165 B.C. and 185–175 B.C. respectively.[6] Discussing the Negama coins, Allan observes that 'the epigraphy has been described (by Cunningham) as Aśokan, but when we see how closely the Brāhmī inscriptions of the coins of Agathocles resemble the Brāhmī of Aśoka, we realise how difficult it is to date these coins within fifty years. I am inclined to put them in the first quarter of second century B. C. If any deduction is to be made from their absence from the well known hoard of coins of Taxila, Pantaleon, and Agathocles, it is that they are later than these Greek rulers and not earlier'.[7] While agreeing, in general, with Allan in assigning these coins to the beginning of the second century B. C., it is

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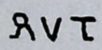
[1] C. C. Dasgupta, *The Development of the Kharoṣṭhī Script*, p. 24, points out that 'one out of the three Dojaka coins illustrated here (Allan, *CCAI*, pl. XXXI. 4) has the Brāhmī legend in the reversed order'. But an examination of the plate reveals that his observation is not correct. In the illustration the coin is shown upside down and therefore the legend is like , this cannot be regarded as a reversed legend.

[2] *Op. cit.*, pp. 2 and 3.

[3] Bühler, G., *The Origin of Indian Brāhma Alphabet*, p. 48.

[4] Cunningham, A., *CAI*, p. 65.

[5] *Ibid.*

[6] Narain, A. K., *op. cit.*, p. 181.

[7] Allan, *op. cit.*, p. cxxvii.

not possible to accept these to belong to a later date than these Greek princes. These two Greek kings, who were almost contemporary, not only imitated the square shape but also the incuse-stamping of the local issues.[1] 'This was done only to maintain the continuity of the local currency, and proves the earlier date of the Negama coins'.[2] For this we can allow a period of fifteen to twenty-five years before it was imitated by the two Greek rulers, and thus the date of the Negama coins can be fixed to about 200 B. C. The similarity of the letter *ja* in the legend *dojaka* of the Negama coins on the one hand and in the coin legends of Agathocles and Pantaleon on the othre does not allow much gap between the two.

Rapson assigned some Persian and Indian coins, countermarked with Brāhmī letters, to the fourth or fifth century B.C. on the evidence of the original coins.[3] But Dani observes that 'the date of countermarking must be later than the time when these issues were current, as this practice is limited to a few coins and not to be seen at any later time. This fact makes the date considerably later than that given by Rapson'.[4] The letter forms on these coins also point to a later date, since they roughly correspond with those of the coins of Agathocles and Pantaleon.

The coin legends which have been selected for the study of the palaeography of second century B.C. are as follows : Coins of Agathocles[5] and Pantaleon,[6] the coins of Dharmapāla,[7] the Negama coins,[8] the coins bearing the legends *udehaki*,[9]

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1. Rapson, *IC*, p. 14.
2. Dani, *IP*, p. 60.
3. Rapson, *JRAS*, 1895, pp. 865 ff.
4. Dani, *op. cit.*, p. 60.
5. Lahiri, A. N., *Corpus of Indo-Greek Coins*, pl. II. 9.
6. *Ibid*, pl. XXVII. 11
7. Allan, *op. cit.*, pl. XVIII. 6.
8. *Ibid*, pl. XXXI. 1, 2, 6, 7.
9. *Ibid*, pl. XXXV. 16.

upagodasa,[1] *upatikyā*,[2] *vaṭasvaka*,[3] *kāḍasa*,[4] *eraka (nya)*[5] *lipuri*[6] and the countermarkings with the Brāhmī letters on the Persian and Indian coins.[7]

Though the palaeography of the coins is not very reliable because of their short legends,[8] we have endeavoured to put them within chronological limits which should not be taken rigidly.

To the last quarter of the second century B.C. can be assigned the inscription engraved on the well-known Garuḍa pillar at Besnagar caused to be inscribed by Heliodorus, who was sent as an envoy by the Indo-Greek king Antialikidas (115-100 B.C.)[9] of Taxila, to the court of Bhāgabhadra, in the fourteenth year of the latter's reign.[10] It is not easy to accept this Bhāgabhadra to be Bhāga or Bhāgavata, the ninth Śuṅga king, because none of the Śuṅga kings are known to have used metronymics as did Bhāgabhadra, who is called *Kāsīputra* or *Kosīputra* (Kautsīputra), although the use of metronymics was common during this period all over India.[11] And secondly, under the contemporary political situations of northern India, it is not likely that the Śuṅgas held sway over Vidiśā during the

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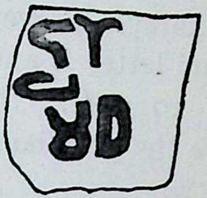
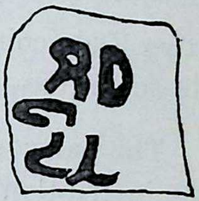
1. *Ibid*, pl. XXXV. 18.
2. *Ibid*, pl. XXXV. 19.
3. *Ibid*, pl. XXXIX. 2.
4. *Ibid*, pl. XIX. 15, 17-18.
5. *JRAS*, 1900, pl. VII. 7.
6. Allan, *op. cit.*, pl. XXXV. 14.
7. *JRAS*, 1895, pl. I. 1, 2–5, 6, 15–16, 17, 13–14.
8. Cf. Dani, *IP*, p. 62. We have preferred to attribute the unreliability of palaeography of coin-legends only to the brevity of the latter because we do not fully subscribe to the view that 'conservatism dies hard in coinage'. This may be true of coin-legends after the first century A. D., but the period with which we are concerned here was one of experimentation in scripts, when new forms were being invented. We shall discuss this further in the next chapter.
9. Narain, *IG*, p. 161.
10. Sircar, *SI*, p. 90.
11. Narain, *op. cit.*, p. 119, fn. 8.

later half of the second century B. C. They must have been forced to content themselves with the territory of Kośala and Magadha. It is also a waste of labour to identify the *mitra*-ending named kings of Pāñchāla with the Śuṅgas. There is considerable weight in Narain's suggestion that Bhāgabhadra was a local king.[1] It is not possible, however, to identify him with the king Bhāgavata mentioned in another Garuḍa pillar inscription found at Besnagar[2] inscribed in his twelfth regnal year. The palaeography of this latter inscription[3] is later than that of the Ghosundi inscription assigned to the first century B. C. A general comparison of the inscriptions of Heliodorus and Bhāgavata will reveal that there is no palaeographical similarity between the two which should otherwise be expected, if we agree with the identification,[4] since the inscriptions there will have to be accepted to have been issued within two years.



A



B

The Eran coin of Dharmapala. Fig. A shows the reversed legend made due to the defective die. In Fig. B the legend is shown mirror-wise as it should be. Here all the letters of the legend *Dhamapālasa* are in their correct shape and order.

General Observations

As we have observed in the previous chapter, casting errors sometimes reverse the forms of the letters. Such errors on the coins have created

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1. *Op. cit.* p. 119.
2. *Mem. ASI*, No. 5, p. 152.
3. *Ibid*, pl, XXVI. a.
4. Narain, *op. cit.*, p. 119.

much confusion. The reverse legend of the coin of Dharmapāla led Bühler to formulate the hypothesis that Brāhmī was first written from right to left.[1] It was obviously a casting mistake and it is strange that these scholars read the reversed letters correctly but did not recognize (or emphasize ?) this fact. For example a reversed *pā* of Brāhmī looks something like a Brāhmī letter *le* and a *la* looks like a *ha*. If read correctly from right to left, this legend[2] will read as *dhamalehasa*, if we ignore the peculiarity of *dha*, *ma* and *sa*.

The mistakes of the Sohgaura plaque have been repeated in the cast coins also. The *o* medial to the letter *do* of *dojaka* has been wrongly put; the *ā* medial being attached to the top and the *e* medial slightly below the top— . Similarly letter *sa* on two Kāḍa coins has not only been reversed but also put up side down like— instead of .

The palaeography of this period, found on the coins and the inscription of Heliodorus, faintly suggests the developments which were to take place in the coming period. The angularity in the letters *da*, *ma*, *va*, *la* and *ha* etc., the rounded top of *ga*, the equalising tendency of the verticals of *pa*, *ha*, *sa* and *ya* etc., and the straight lined *o* medial are some such indications.

VOWELS

To begin with the *svaras*, we come across only *a*, *i*, *u*, *e* and *o*. In the Besnagar inscription, two arms of *a* meet the vertical at two points (VI. 1. i-ii) and on the reverse of one of the Negama coins also we find this (VII. 1. i). But on the coin of Agathocles, the two arms of *a* meet at the same point and the vertical also seems to be somewhat inclined (VII. 1. ii).

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1. Bühler, *IP*., p. 23. It is unfortunate that scholars like Bühler discussed here the shapes of the letters *sa*, *dha* and *ma* but ignored the reversed shapes of *pā* and *la*.
2. Allan, *op. cit.*, p. 140.

The letter *i* is the usual three dots with its supposed apex to the right (VI. 2. i). The letters *u* (VI. 3. i, VII. 3. i), *e* (VII. 4. i) and *a* (VI. 5. i) are the usual Aśokan type.

CONSONANTS

SIMPLE AKSHARAS

Gutturals

As in the preceding period, the letter *ka* is a simple cross. In the Besnagar inscription, the vertical is somewhat longer than the horizontal, but on the coins both lines are almost equal. The medial signs for *ā* (VI. 6. i, VII. 6. ii), *i* (VI. 6. ii, VII. 6. iii) and *o* (VI. 6. iv) are correctly attached. In the letter *kha*, the hook and the circle are separated by a gap (VII. 7. i.).[1] The letter *ga* is angular in the inscription of Heliodorus (VI. 8. i) but on the coins we notice rounded tops also (VII. 8. ii). The medial sign for *o* is a straight line at the top of the letter *go* on the coin legend *upagodasa* (VII. 8. iii) while we see a curious *o* medial attached to the letter *ga* in a counter-mark illustrated by Rapson.[2] In a rounded top *ga*, two right and left medials are added which are curved and pointing upwards (VII. 8. iv).

Palatals

There is nothing noteworthy in the letter *cha*, which is of the usual Aśokan type. While written cursively angular *cha* can also be noticed (VI. 9. i). It seems that the rounded double curved *ja* was the normal practice of northern India since the time of Aśoka,[3] and continues upto this period. Written in cursive hand, it makes a loop in the middle— ɛ (VI. 10. i). Probably this loop was taken to be important because we see it emphasized in many ways. At one place in the Besnagar inscription, it is shown in the middle of a single curve in the form of another small curve joined by a small bar— ɛ (VI. 10. ii). We do not find any such example in the later period. On the coins of Agathocles and Pantaleon and on the Negama-Dojaka coins, this loop is emphasised in another way— ℓ (VII. 10. ii). The similarity of this letter in the coins of the Greek princes and the Negama coins does not allow us to imagine much of a gap between them. The angular variety of *ja* (VII. 10. i) was also optionally used during this period, and, in the first century A. D. became the most common type on the coins. The letter *ña* is of the usual Aśokan style (VI. 11. i).

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[1] Rapson, *JRAS*, 1895, pl. 1.6.

[2] *Ibid*, pl. 1.17

[3] Dani, *op. cit.* p. 39.

Linguals

There is nothing unusual in the letters *ṭa* (VII. 12. i) and *ṭha* (VI. 13. i) except the cursive *i* medial in the latter. The letter *ḍa* is more cursive in the coin legend (VII. 14. i), than in the Besnagar inscription (VI. 14. i). The letter *ṇa* also retains the shape of the preceding period (VI. 15. i).

Dentals

The dentals are represented by all the five letters. The letter *ta* retains both the main types discussed in the previous chapter. The first was formed by appending a short line to an inclined straight line. This may be written in two ways— λ and — λ . Both these varieties are traceable here (VI. 16. iii and VII. 16. iii). The second main type is written by appending an angle to a vertical line— λ (VI. 16. i, VII. 16. ii). The *ā* medial is not always a horizontal stroke. Sometimes it is in the shape of a slanting stroke which becomes a regular feature of the later period.

A circle with a dot in the middle is the shape of the letter *tha* which retains its older form (VII. 17. i). But the letter *da* is found written in the angular (VII. 18. ii) as well as in the cursive (VI. 18. i–v) manner. The medials for *i* (VI. 18.

ii), *e* (VII. 18. ii), *ū* (VI. 18. iii) and *o* (VI. 18. v) are attached in the correct way. But, as mentioned above, the *o* medial in *do* of the *dojaka* cast coins is wrongly added (VII. 18. iii) which is obviously a casting mistake.

The letter *dha* on the coin of Dharmapāla of Eran is reversed because of a casting mistake (VII. 19. ii) and therefore it should be read in the corrected form (VII. 19. i). In the Besnagar epigraph, this letter is somewhat angular (VI. 19. i). The letter *na* also retains the previous form but its vertical is becoming shorter. The *e* and *ā* medials (VI. 20. iv and VII. 20.ii) are optionally slanting.

Labials

Only *pa*, *bha* and *ma* are represented in the epigraph, and the coin legends selected for the study of this period. The letter *pa* is optionally archaic on the coins (VII. 21. i) but in the Besnagar inscription both the verticals of *pa* tend towards equalization. Similar is the case of the letter *ma* which retains a perfect circle on the coins (VII. 23. i) but in the epigraph the perfection of the circle was not maintained (VI, 23. i–iii). In this the germs of the angular variety of *ma* of the later period can be marked.

Semi-vowels

Though in the majority of cases the letter *ya* is of the older type, we can notice some letters with equalised verticals (VI. 24. ii, VII. 24. i) which is a characteristic of the later period. The double crescent type *ya* is not found except in one coin where it is used as a conjunct with *ka* (VII. 30. ii). The mode of adding *o* medial to this letter is also most modern for the period under discussion, i. e., a horizontal stroke extending to the right and left side of the middle vertical. This becomes the most acceptable feature in the later period. In the Besnagar example of *yo* (VI. 24. iii), the strokes on both sides are noticeably separated, but the countermark Brāhmī letter *yo* on a Persian coin[1] has a single straight line for the medial (VII. 24. iii).

The serpentine vertical form of *ra*, described by Bühler as the cork-screw type, seems to be the most popular (VI. 25. i, iv, & VII. 25. i). This type of *ra* is found in the Sitabenga cave inscription of the Ramgarh hills, already discussed in the previous chapter. In the *Erakanya* coin published by Rapson,[2] *ra* has a peculiar shape with double curves placed one over the other (VII. 25. ii). This form of *ra*, we also find used in a pavement slab inscription of Sāñchī Stūpa I discussed in the next chapter (IX. 32. iii) but never again. In the Besnagar epigraph, an optional curved form of the straight vertical is also to be seen (VI. 25. ii). In the Tripuri coin, *ra* with *i* medial looks like a *ḍa* because the *i* medial is as long as the main letter (VII. 25. iii). On the basis of palaeography, this coin can be assigned to towards the end of this century.

The letter *la* in the Besnagar inscription tends to become wider and more angular, while on the coins the older form continues (VII. 26. i-ii). Similarly *va* also continues its perfect circle on the coins (VII. 27. i) but at Besnagar, it is not as perfect (VI. 27. i-ii). Though nothing definite can be derived from the shapes of *va* at Besnagar, we can see the germs of the angular *va* of the centuries to come.

Sibilants and *Ha*

Among the records of this period, we find only dental *sa* in use. Smith[3] prefers to read the letter *sa* on the coin of Pantaleon as *sha* because this letter (VII. 28. iii) resembles Aśokan *sha*. But as we have discussed in the previous chapter[4] this may be another form of *sa*. We can notice the equalising

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1. Rapson, *IC*, pl. I. 4.
2. *JRAS*, 1900, pl. VII. 7.
3. *IMC*, p. 10.
4. *Supra*, pp. 36-37.

tendency of the verticals of *sa* (VI. 28. i-iii & VII. 28. i). In some *kāḍasa* coins, the letter *sa* is not only reversed but also put upside down (VII. 28, ii), which is a casting mistake. The medial signs for *i* and *ī* (VI. 28. ii-iii) are cursive and conventional.

The letter *ha* in the Besnagar epigraph has an angular formation, the left vertical becoming shorter while the right one becomes longer (VI. 29. i-ii). But in the *udehaki* coin legend, this letter has almost equal verticals while retaining its archaic look (VII. 29. i) and, therefore, it can be dated in the last quarter of the second century B.C.[1]

COMPOUND AKSHARAS

Groups with initial guttural

On the coins, we have two compound letters with *ka* as the initial letter. These are *kla* and *kyā* (VII. 30. i & ii). Incidentally, in both the conjuncts, all letters have verticals. Therefore, a single vertical has been used for both the letters, following the established rule since the time of Aśoka that the letter pronounced first will occupy the upper position and the next will be in the lower one. In the conjunct *kla*, the right vertical of *la*, which is usually the longer one, serves as a vertical for *ka* also; and in the conjunct *kyā*, the middle vertical of *ya* takes this position. In both cases, the conjuncts are so adjusted as not to take more space than an average letter.

In the Besnagar inscription we find a conjunct with double *kha*. To form this letter, a normal *kha* is made and then a stroke to the left is attached slightly above the circle like— (VI. 30. i). Probably this downward stroke is meant to be the other *kha*.[2] R. P. Chanda remarks that 'the double consonant, *khkha*, is remarkable. In literary Prākrits an aspirate is doubled by prefixing the nonaspirated sound as *kkha'*.[1] Probably he wants to suggest that the downward stroke represents *kā*, which, however, is doubtful. The angularity of the hook of *kha* and the elongated circle is noteworthy in this compound letter.

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[1] Allan, *op. cit.*, p. cxli.

[2] Cf. Sircar *SI*, p. 90; *Mem. ASI*, No. 1, p. 16 for the reading of the word *Takhkhasilākena*.

Groups with initial Dental

The compound letters are found made with the initial *ta* and *dha*. So far as the group with initial *ta* is concerned we find the conjunct *trā* (VI. 30. iii). To the right leg of *ta* the serpentine *ra* is added. The next compound letter *dhva* (VI. 30. ii) is formed by extending the vertical of *dha* downwards and then appending a circle to it. These conjuncts are in accordance with the rule.

Groups with initial Labial

The compound letter of this group is *pra* (VI. 30. iv) formed by appending a serpentine *ra* to the bottom of letter *pa*. The equalised verticals of *pa* are remarkable.

Groups with initial Sibilant

The compound letters found with initial *sa* are only in conjunction with *va*. This we find in the coin legends as well as in the Besnagar inscription. At Besnagar, the letter *va* is appended to the right hook of the letter *sa* (VI. 30. v), while on the *vaṭasvaka* coin, *va* is attached in the alignment of the main vertical of *sa* (VII. 30. iii).

Concluding Remarks

We need not emphasize the fact that the palaeography of coins is doubtful and we should not give too much importance to it. But it has been the tragedy of Indian archaeology that 'the basic chronology of the north Indian excavations of the early historic period is founded on triple evidence—(i) the date of N.B.P. Ware; (ii) the occurrence of punch-marked coins and (iii) the palaeography of the letters appearing on coins and seals. In general the excavator falls back on coins to date his N.B.P.; and the numismatist has been repeating the words of John Allan on the date of palaeography as if Allan's statements are final. But the palaeography of coin legends can not be reduced to a definite chronological boundary'.[1] However, it has been said about Allan that 'no systematic attempt was made by him to analyse the letters, and when no other evidence was available he fell back on the style of writing'.[2] We have already noted the characteristics traceable in the records of this period which became the regular features, in a modified form, of the subsequent century. We feel no necessity of repeating them here again. The small and scanty nature of the material available in this period, except the Besnagar one, prevents us from having the many types and varieties which we could have had otherwise.

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[1] *Mem. ASI*, No. 1, p. 16, fn. 1.

A new approach has been made here to study the palaeography of the coin legends in the cultural context. In the second century B. C. the north western frontier of India was primarily affected by the cultural and political contacts with the foreign invaders who tried to settle down on Indian soil and influenced the local culture considerably. Several experiments were undertaken by the indigenous people in the field of coin technology but we see that in the subsequent centuries foreign methods were accepted in this field. Greek palaeography influenced the palaeography of the Brāhmī script. Brāhmī letters tended to take shapes nearer to the Greek letters. Greek letters were almost equal in length and breadth and looked more beautiful in the limited space on the borders of the coins. They were convenient too. This quality of the Greek letters influenced the Brāhmī *aksharas*, whose verticals started being reduced on coins. These experiments continued in the next century also

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1. Dani, *JNSI*, vol. XXII, p. 1.
2. Dani., *IP*, p. 59.

till Brāhmī acquired a new look by the beginning of the first century A.D. But this is not the only contribution of this period. The legends engraved on the coins, as compared to the inscriptions on stone made the script easily accessible to the people. This contributed much towards the diffusion of the knowledge of the writing. We have reserved this for discussion in the next chapter.

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2. Cunningham, A., *Coins of Ancient India*, Varanasi, 1963.
3. Dani, A. H., Punch-marked Coins in Indian Archaeology, *JNSI*, Vol. XXII, pp. 1–12.
4. Lahiri, A. N., *Corpus of Indo-Greek Coins, Calcutta*, 1965.
5. Rapson, E. J., *Indian Coins*, Strassburg, 1897.
6. Rapson, E. J., Countermarks on early Persian and Indian Coins, *JRAS*, 1895, pp. 865 ff.
7. Rapson, E. J., Notes on Indian Coins and Seals, *JRAS*, 1900, pp. 97-126, 423-429.

II. Besnagar Inscription of Heliodorus :

1. *ASI* (*AR*), 1908–9.
2. *Mem. ASI*, No. 1, pl. II.

CHAPTER IV

THE PERIOD OF DIFFUSION

(Ist Century B. C.)

The period of experiments with the Brāhmī script did not end with the end of second century B. C. ; rather it continued, on a bigger scale, in the first century B. C. also. The main impulse to this accelerated development came with the attempt to make Brāhmi more and more convenient for the coin legends where the space is very limited. For this, Greek coins and Greek script served as model. The regions which were nearest and therefore in closest contact with the Greeks were inspired more emphatically to a rapid change. For example, in the lettering on the earliest Yaudheya coins bearing the legend *yaudheyānāṁ bahudhāñake,*[1] an attempt is made to resemble the lettering on the Greek coins. A perfection in this kind of imitation was achieved by the Kuṇindas, especially in the coins of Amoghabhūti.[2] The coins thus served as pioneers in the field of script style at least in this period, and it is not reasonable to hold the view that the coins are conservative in this respect.[3] This is true for the Brāhmī script at least up to the period of the Śaka Kshatrapas of Mathura. A comparison of Table VIII of the coin Series No. II (1st century B. C.) with the inscriptions assignable to the first century B. C. (Tables IX-XIV) and the Table XV of the coin Series No. III with the inscriptions assigned to the early first century A. D., will reveal that the letters on the coins are more advanced and modern than the script on the stone.

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[1] Allan, *CCAI*, pl. XXXIX.

[2] *Ibid*, pl. XXII.

[3] Cf. Dani, *IP*, p. 62.

But this is not the only contribution of the use of script on coins. As we have said in the previous chapter, the script reached the people more easily and more frequently through coins. As a consequence more and more people must have become interested in the mysterious and powerful art of writing. Once more religion came forward as a help. Though the Ghosundi and Bhilsa inscriptions are associated with royal names, their theme is popular, that is to say, religious. The reconstruction and enlargement of the great stūpas at Sāñchī and Bhārhut were in progress in this period and the enthusiastic *upāsakas* as well as *bhikshus* took an active part in this and gave donations towards it. Besides their religious zeal, the temptation to have their names engraved on such colossal monuments, contributed much towards the completion of these stūpas. It is not easy to imagine what percentage of the donors was illiterate and how many learnt the script to enjoy the thrill of reading their own names. Undoubtedly this was a great achievement towards the popularisation of script.

On the grounds of palaeographic development we have assigned the early inscriptions of the Sāñchī (Tables IX & X) and Bhārhut stūpas (Table XI) to the first century B. C. This is not in agreement with the general belief that the railings on these stūpas were made during the time of the Śuṅgas. There is, however, no evidence for the latter except the palaeography, which has been used by Indian archaeologists as a rubber tape to extend or contract at convenience. The mention of the Śuṅgas on the eastern gateway at Bhārhut also does not really help us much on this point. Palaeographically this inscription can be assigned to the beginning of the first century A. D.

In support of our scheme of chronology we will first quote

R. P. Chanda and then give our arguments based purely on the palaeographic observations. He[1] writes :—

"...the Brāhmī inscriptions from the third century B.C. to the second century A. D. may be chronologically arranged in the following order :

1. Edicts of Aśoka.
2. Nāgārjunī Hill cave inscriptions of Aśoka's grandson Daśaratha.
3. Besnagar Garuḍa pillar inscriptions (sic).
4. (a) Inscriptions on the railings of Stūpa I at Sāñchī.
    (b) Inscriptions on the railings of Stūpa II at Sāñchī.
    (c) Bhārhut railing inscriptions.
    (d) Inscriptions on the remnants of the old Bodh Gayā railing.
5. (a) Besnagar Garuḍa pillar inscription of the year 12 after the installation of *mahārāja* Bhāgavata.
    (b) Inscriptions of Nāyanikā, widow of the Āndhra king Sātakarṇi I in the Nānāghāt cave.
    (c) Bhārhut *toraṇa* (gateway) inscription.
6. Hāthigumphā inscription of Khāravela, king of Kaliṅga.
7. Sāñchī *toraṇa* inscriptions.
8. Inscriptions of the time of Śoḍāsa.
9. Inscriptions of Kanishka.,

Palaeography was undoubtedly the basis for the above arrangement by Chanda, although he does not try to date these groups individually. However he quotes in his support the authority of Sir John Marshall who follows the same chronological arrangement in his study of the development of early

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[1] *Mem. ASI*, No. 1. pp. 14-15,

Indian art. Marshall's testimony, in the words of Chanda, runs as follows :

> 'The sculpture on the railing of the Bhārhut stūpa he (Marshall) assigns to the middle of the second century B. C., and those on the gateway to a later date; the original sculptures on the ground rail of Stūpa II at Sāñchī to about the same time; the railing of Bodh-Gayā to the earlier years of the first century B. C. ; the sculptures in the Māñchapuri Caves at Udayagiri, in the upper storey of which the inscription of Kharavela's queen is incised, to a date considerably posterior to the sculptures of Bhārhut; the reliefs on the four gateways of Sāñchī to the latter half of the first century B. C. and the sculptures of the time of the Śaka Satraps of Mathura to about the beginning of or a little before, the Christian era.'[1]

Chanda's reference is obviously to Marshall's chapter on 'The Monuments of Ancient India' in *The Cambridge History of India*, Vol. I. Marshall may be produced in support to the extent that within a known historic framework and with generic relationship assumed, it should be possible to arrange different manifestations of art or art-styles into a tentative relative chronology. But, for more precise and absolute chronology, the evidence of dated inscriptions and consequently of palaeography will have to be considered. Marshall himself does not appear to dispense with them; only, in his short account of ancient Indian monuments, he generally takes them for granted. However, whether or not Chanda is fully justified in bringing Marshall to his support, we agree in general outline with the two authors and, on that basis, offer the following review of the chronology of the inscriptions of this period.

As regards the edicts of Aśoka and the Nāgārjunī cave inscriptions of Daśaratha, there is no dispute about their dating in the third century B.C. Next in order comes the Besnagar Garuḍa pillar inscription of Heliodorus. Its date must be that of Antialcidas, whom he represented in the court of Bhāgabhadra, the son of *Kosī* or *Kaulsī*. A. K. Narain assigns him a reign of 15 years towards the end of the second century B.C., i. e., circa 115 B.C. to 100 B.C.[1] We agree with this dating which can not be pushed back too much to effect our scheme.

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[1] *Op. cit.*, p. 15.

In the next group Chanda mentions four sets of inscriptions; inscriptions on the railings of Stūpa I at Sāñchī, those on the railings of Stūpa II at Sāñchī, the Bhārhut railing inscriptions, and the inscriptions on the remnants of the old Bodh Gayā railing. Obviously these should find place in the first century B. C. except the Bodh Gayā one. The triangular forms of the letters *ma* and *va*, the equalised verticals of *pa* and *sa*, and the use of long tailed *i* medial are some of the features which do not fit with the other sets of inscriptions and point towards the subsequent period, i. e. the first century A.D.[2]

We have grouped the inscriptions of Sāñchī, assignable to the first century B.C., into two series. In the first are included the majority of inscriptions incised on the railings of Stūpa I and the inscriptions scratched on the caskets found in Stūpa III. The palaeography of this series is closer to that of the Besnagar inscription of Heliodorus, but there are some features such as the straight vertical of *bha* and a single horizontal line for the *o* medial, which are pointers to further development. Series II of Sāñchī includes mostly the inscriptions engraved on the railings and those scratched on the relic caskets from Stūpa II. The inscriptions on the railings, on both the stūpas, show a variety of hands, while those on the caskets exhibit unity. The rounded *ga*, double looped *chha*, a single horizontal line for the *o* medial, and the marked angularity of most of the letters definitely indicate the posteriority of the second series.

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1. *IG*, p. 181.
2. See *Infra*, Chapter V.

The inscriptions on the caskets are more advanced because of the reduced verticals, angularity, *i* medials, and especially the mode of adding the *u* medials to the letters *sa* and *pa* by extending the right vertical downwards. These are the features which gave a new style to Brāhmī when written by the new pen, introduced in the first century A.D. Thus there seems no difficulty in assigning series II to the later half of the first century B.C. and Series I to the earlier half. The railing inscriptions of Bhārhut, Series I, are also to be placed in the later half of this century on the grounds of palaeography.

The fifth group of Chanda can be assigned to the close of the first century B.C. To this group may be added the inscriptions found at Ghosuṇḍī and Barli. In this group of inscriptions we mark a tendency to create letters in a way which was responsible for the new pen style of the first century A. D. Attempt to equalise and angularise the verticals of *pa*, *sa*, *ha*, etc., the tendency of transforming the oval of *ma*, *va* and *kha* into a triangle, and the way in which medials for *u* and *i* are attached are some traits of this period from which the new pen style was inspired. The casket inscriptions of Stūpa II at Sāñchī may also be noticed for these features.

His sixth, seventh and eighth groups are assignable in the first century A. D. and therefore will be considered in the next chapter. The Kushāṇa inscriptions beginning from the last quarter of the first century A.D. are discussed in the subsequent chapter.

The first century B. C. is comparatively rich in palaeographic material from the numismatic sources. It is not possible to agree with D. C. Sircar that the earliest inscribed coins do not appear to be earlier than the Besnagar inscription of the end of the second century B. C.,[1] because 'the fashion of mentioning the name of the ruling authority in the coin legend was inspired and popularised in India by foreign kings beginning with the Indo-Greeks'. We have already shown, there are some coin legends which can be assigned to the second century B.C. on palaeographic grounds.[1] A palaeographical analysis shows that the coin legends which can be attributed to the first century B.C. are —

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[1] *Age of Imperial Unity*, p. 159.

1. The coins of the Ārjunāyanas bearing the legend *ārjunāyanānāṁ jaya*.
2. The legends on the coins attributed to Kanauj by Allan.
3. Early Kauśāmbī coins.
4. Mathura local coins.
5. Coins of Rājanya and Trakata *Janapadas.*
6. Early Yaudheya coins.
7. Coins of the Śibi *janapada.*
8. Mālava coins bearing the legends *mālavānāṁ jaya* and *senāpatis vachhaghosa*.

Our table VIII represents characteristic letter forms taken from the photographs of the coins published mainly in Allan's *CCAI* and the volumes of *JNSI*. The majority of the plates in the volumes of *JNSI* are not clear enough and most of the readings cannot be verified from the photographs. We have had to depend, therefore, mainly on the excellent plates of Allan's book though a good deal of new Kauśāmbī and Pāñchāla coins of this period have come to light since the *CCAI* was published by the British Museum in 1936. These new coins were mostly published in *JNSI* which we could not use with satisfaction. However, an explanation of the letters illustrated can be found in the 'Explanation Table' of Table VIII.

This century is also marked by the use of inscribed seals, as far as we have for the first time since the Indus civilization. The seals are personal as well as official. Some of the seals which can be attributed to the first century B. C. on the basis of palaeography are those bearing the legends *Vasubhūti*,[1] *mālava janapadasa*,[2] *śahijitiya nigameśa*,[3] etc. Regarding the dating of the seals, and sometimes also of the coins, it has become general fashion to date letterings which are not clearly Śaka or Kushāṇa, to the third-second century B.C. This convention can be seen in any article dealing with the inscribed coins or seals.

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[1] *Supra*, pp. 45 ff.

We are not interested in building our thesis on the criticism of the datings of the past scholars, but we may select a few instances for illustrations. In *JNSI* volume XXIV (1962) pp. 193-94, R. C. Agrawala describes and dates some seals and coins found in the excavations at Rairh, most of which are illustrated in K. N. Puri's *Excavations at Rairh* plate XXVI Nos. 19-24. According to Agrawala, the earliest seal in this group is a tiny seal impression in relief on a half-cut terracotta ball with No. R. 3096, pl. XXVI/19 only two letters *ma* and *da* in 3rd-2nd century B.C. Brāhmī script. But the letter *da* of this seal opens to the right, as we find in the inscriptions of the first century A.D. and afterwards. To the second century B.C. he assigns the seals with the legends *mālava janapada* (22), *vasubhūti*(21), *sarvadatas*(20) and *vachhūsalīyagopa* (*la* ?) *ya* (24). The letters *la*, *pa*, and *sa* of the legend *mālava janapada* are angular and in our opinion may belong to the end of the first century B.C. Here it is interesting to note that the letters *ta* and *sa* of the second line of this seal are written upside down as if to be read after turning the seal round. The oval shape of *va*, the equalising verticals of *sa*, the double-looped *chha*, the angular *pa*, etc. are some features of remaining two seals which are characteristics of the first century B.C. Another example of such loose dating is that of *nigameśa* seal from Bhita which is

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1. *Excavations at Rairh*, plate XXVI, 21.
2. *Ibid*, XXVI, 22.
3. *ASI*(*AR*), pp. 11-12, pl. XVII.

dated in circa third century B.C.[1] Such instances can be multiplied but here we only want to emphasize that sometimes the dating of the seals is done loosely, without considering their palaeography seriously.

With these primary remarks about the records selected for the study of the palaeography of this period, we are now in a position to deal with the formation of individual letters and, as far as possible, to point out their relationship with the preceding and succeeding ones. We will also try to trace the development that took place within the century.

VOWELS

Beginning with the vowels, one finds that although there are two varieties of the letter *a*, i. e., (i) both the arms meeting at one point and then joining the vertical (VIII. 1. i; X. 1. i; XI. 1. i) and (ii) with a gap between the arms (IX. 1. i; X. 1. ii; XI. 1. ii); the latter variety has been used in majority of the cases. In the votive inscriptions of Sāñchī this form has been used as a rule and has been called 'the standard monumental form of the letter'.[2] In the Sāñchī pillar inscription of Aśoka and in the Besnagar pillar inscription of Heliodorus (VI. 1. i, ii) only this form appears, and becomes a characteristic feature of post-Aśokan writing. At Bhārhut this from is noticed in quite a large number of cases, but the first variety also persists there.

The letter *i* continues its older form of three dots; generally the apex being to the right (IX. 2. i, XI. 2. i, ii), though sometime also at the top (X. 2. i). Similarly the letter *e* also continues its simple angular shape written with a varying degree of cursiveness (VIII. 3. i. IX. 3. i, X. 3. i. and XI. 3. i). At Bhārhut Series I for the first time we find long *ū* (XI. 4. i). This letter is formed by adding one bar to the middle of the vertical of the angle like 𑀊 . Upasak opines that this shows a combination of two *u*s i. e. 𑀉+𑀉=𑀊 [1]. We do not find much change in the shape of *e*. Though in the Sāñchī Series I, it retains its triangular shape, with its apex at right (IX. 5. i), we notice that at Bhārhut its angular apex at the right tends to be curved (XI. 5. i). Though the letter *o* is used in several Aśokan edicts, it occurs for the first time among the post-Aśokan records at Sāñchī I (IX. 6. i). It is formed simply by adding a horizontal stroke to the sign of *u*, 𑀑 . Upasak notices here the rule of *guṇa* combination applied. According to this rûle *o* is composed of *ā*+*u*. He applies this to the symbols also and observes that 'the medial sign for *ā* is a small horizontal dash (—) and when it is added the sign *u*, 𑀉 , it becomes *o*, 𑀑 '[2]. But this is not acceptable because, firstly, a dash to the left of the letter is the sign for the medial *e* and not for *a*; and, secondly it is not possible to apply the Sanskrit grammetical rules to the signs of the Brāhmī letters.[3] He also puts forward the argument that the letter took this shape to avoid letter *ṅa*; this argument also is not convincing because we do not find examples of *ṅa* until much later,[4] when Sanskrit began to be used for inscriptions.

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[1] *ASI*(*AR*), pp. 11-12, pl. XVII.

[2] Majumdar, N. G., *MS*, p. 265.

CONSONANTS

SIMPLE AKSHARAS

Gutturals

The letter *ka* continues its cross shape. Though in some cases in the inscriptions of Bhārhut and Sāñchī *ka* is of the

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1. *HPMB*, p. 16.
2. *Ibid.*
3. Cf. Verma, T. P., *JOI*, XIII, No. 4, p. 365, where we have dealt with this problem in some detail.
4. See, Plate IV.

shape of a perfect plus sign of equal arms, generally the vertical is longer than the horizontal bar. In adding the *ā* (IX. 7. i), *i* (IX, 7. ii), *e* (XIV. 7. i) and *u* (IX. 7. iii & XI. 7. iii) medials the older practice is followed, but some new trends and peculiarities can also be noticed. For example we can see cursive variety of *i* medial (XI. 7. ii); a slightly slanting stroke for *e* medial (IX. 7. iv) instead of a horizontal one; a simple line extending towards right and the left of the vertical for *o* medial. This type of *o* medial becomes a regular feature in this period.

There are three types of the letter *kha* in these inscriptions : (1) the round-topped *kha* without a dot (IX. 8. ii, X. 8. iii, XI. 8. ii & iv); (2) round-topped *kha* with a dot (X. 8. i); and (3) round-topped *kha* with a circle (IX. 8. i, X. 8. ii, XI. 8. i, iii, v). In some cases this circle is not perfect. *I* medial is attached in the traditional manner. The *u* medial sign is added in two ways. If the letter is appended with a circle, a short bar is added below it vertically (X. 8, ii; XI. 8. iii); but if it is the type of *kha* without a dot a short horizontal bar is attached to the right of the lower tip of the letter (X. 8. iii). The *o* medial sign is neither a horizontal line extending to the right and left of the letter nor two separate horizontal strokes, but it is formed by two slanting strokes (XI. 8. iv, v). This practice becomes more frequent in the first century A. D.

The letter *ga*, in this period, is to be seen variously from angular top to the round top (see Plate III. line 9). One of the most striking features noticed here is the mode of attaching the sign of *o* medial, in which different evolutionary steps can be traced. After two separate dashes of *ā* and *e* medials, which together make an *o* medial sign, a horizontal bar was used for this (VIII. 9. i; X. 9. iv; XIII. 9. i). The next step was to curve this line (XI, 9. iii) and finally this curve takes the shape of two slanting strokes (VIII. 9. ii). The medial sign for *u* is shown simply by curving the right leg towards the right (X. 9. iii).

There are two distinct types of the letter *gha*, i. e., the old round-bottomed type, and the flat-bottomed type (IX. 10. i) which is a new development. There is a tendency towards shortening the left verticals and in Sāñchī II, we find almost equalised verticals (X. 10. i-ii). The medial sign for *ā* (XI. 10. ii); *i* (IX. 10. ii; XI. 10. iii) and *o* (XI. 10. iv; VIII. 10. i) are added to the left arm. At one place the *u* medial is shown by extending the middle vertical a little below (IX. 10. iii).

Palatals

The letter *cha* is usually of the same old semicircular loop type (IX. 11. i, XI. 11. i-iv), but the triangular loop type *cha* (IX. 11. iii) is also to be seen. The medial sign for *i* is added to this letter in two ways, either by adding a curved medial at the top of the letter (IX. 11. ii) or by adding the curve slightly below the top to the right side (X. 11. iii). The *u* medial sign is also attached in two ways. Sometimes an extention of the vertical takes place below the letter to show this medial (IX. 11. iii; X. 11. i) and sometimes a horizontal dash is added to the bottom of the letter extending to the right (XI. 11. iv). The long *ū* medial is shown by adding two such dashes (XI. 11. v). The *ā* (XI. 11. ii) and *e* (XI. 11. vi) medials are in the traditional fashion.

We find only two types of the letter *chha* in these inscriptions, i. e. *chha* with an oval base (VIII. 12. i; IX. 12. ii) and *chha* with a double loop at the base (X. 12. i-ii, XI. 12. i-iii). The latter is the evolved form. The medial signs of *i* (XI. 12. ii), *u* (IX. 12. i; XI. 12. iii) and long *ū* (VIII. 12. ii) are all shown in the old traditional way.

There are at least two types and many varieties of the letter *ja*. The two main types are the three-armed *ja* and the double curved *ja*. The three-armed *ja* has two varieties, i.e., with straight vertical (VIII. 13. i. XI. 13. iv); and with curved vertical (VIII. 13. ii, XIII 13. i). The double-curved types have many varieties. Besides two simple curves placed one upon the other (IX. 13. i, X. 13. i, XI. 13. i-iii and iv-v, XII, 13. i), another variety emerges out of the movement of the pen in cursive hand, forming a loop in the middle (IX. 13. ii-iii). This loop is emphasized in another way when artistically written in the inscription of *Vajiguta* at Sāñchī (IX. 13. v). There are some intermediate forms between these two main types (VIII. 13. iii-iv).

The medial sign for *ā* is added variously in this letter. Sometimes it is shown by extending the middle arm (IX. 13. iv) and sometimes a stroke is added in the middle of the upper curve if it is the double-curved variety (XI. 13. iii), and if it is a three-armed *ja*, an additional stroke is added upon the upper arm making four arms (XI. 13. iv) in both the cases. Sometimes a slanting stroke is added to the upper arm of the curve (XI. 13. ii) to indicate an *ā* medial. A slanting stroke is added to the middle arm to show an *i* medial (XI. 13. v) and sometimes it is shown by extending the upper arm vertically (IX. 13. v). The medial sign for *u* is shown by extending the lower arm vertically downwards (VIII. 13. iv) and the *e* medial sign is attached to the upper curve to the left of it (XI. 13. vi).

The letter *jha* is simple and has no variety or type (Plate III, line 14). The medial sign for *ā* (IX. 14. i) and *i* (IX. 14. ii, XI. 14. ii, XIV. 14. i) are added variously to both the verticals according to convenience.

There is no change in the formation of the letter *ña*. On the coins the right hook is comparatively smaller (VIII. 15. i) while on the stone records the right hook reaches the left leg (IX. 15. i-ii. XI. 15. i-ii). *O* medial is shown by a small bar making a cross at the neck of the letter (XI. 15. ii).

Linguals

The sign for the letter *ṭa* is a small semicircle opening to the right, and is one of the letters least susceptible to change.

A vertical dash added to the upper end of the letter makes the *i* medial (IX. 16. i, X. 16. i, XI. 16. ii) and such a dash to the lower makes a *u* medial (XI. 16. iii).

Similarly the letter *ṭha*, which is a complete circle, is also not very susceptible to change and it retains this shape since the time of Aśoka. The sign for *i* medial to it is the same as for other letters with straight vertical and is generally attached at the 2 O'clock point of the circle (IX. 17. ii, X. 17. i, XI. 17. ii).

Though the letter *ḍa* retains its older shape in many cases (VIII. 18. i, X. 18. i-ii etc.), some hurriedly written forms are also to be seen (IX. 18. ii). The signs for *ā*, *e*, *i* and *u* medials are as usual. Long *ī* is shown by two lines (IX. 18. ii).

The letters *ḍha* and *ṇa* continue their old Aśokan forms (Pl. III, line 19 and line 20). The mode of adding *ā* and *i* medials is also the same.

Dentals

Among the dentals there are at least three main types of the letter *ta*. The angular *ta* with the two lower appendages making an angle can be seen at Sāñchī I (IX. 21. ii & v), Bhārhut I (XI. 21. iii-v) and Barli (XIV. 21. i-ii). The curved type of *ta* with its two lower appendages meeting in an upper curve is to be noticed on the coin legends (VIII. 21. i, iv, vi) and at Bhilsa (XIII. 21. iii). The third type has two varieties : (a) with its angle-making stroke to the left (VIII. 21. ii, v; IX. 21. iii); and (b) with its stroke to the right (VIII. 21. iii; IX. 21. i, iv; X. 21. ii; XI. 21. i; XIII. 21. i). The medial sign for *i*, *ī*, *u*, *e* etc. are as usual, but in some cases a slanting stroke serves as *i* medial (X. 21. ii) and a single line indicates *o* medial instead of two separate strokes (XI. 21. v).

The letter *tha* is another which shows little change, i. e., the dot in the circle still continues. A single downward stroke serves for the *u* medial (XI. 22. iv) and two such strokes are used for long *ū* medial (X. 22. ii). Similarly single and double-curved upward strokes are used for the medials *i* and *ī* (XI. 22. ii & iii) respectively.

Letter *da* is more susceptible to change and a glance at line 23 of plate III will reveal that its shape varies much. However, in almost all the cases the middle opening is still to the left. When written hurriedly this letter sometimes resembles *ḍa* (IX. 23. i, cf. XI. 18. ii) and sometimes *ja* (e.g. IX. 23. vi. cf. XIII. 13. i). For medial signs the usual practice is followed.

The letter *dha* is sometimes regarded as important from the viewpoint of the development of the script.[1] In most of the Aśokan inscriptions this letter is of the shape of the Roman capital letter D.[2] The same is the shape in the Mahāsthān and Piprāhvā inscriptions.[3] But in the later inscriptions it has a reverse form. At Sāñchi and Bhārhut the vertical stroke appears to the right of the loop (IX, X, XI line 24). The medial signs are used in the conventional way, but sometimes there seems some confusion regarding the medial *u*. In some instances, this is shown by extending the vertical line downwards (IX. 24. iii & XI. 24. v), but in others a small horizontal bar is used (XI. 24. iv).

Ever since the time of Aśoka, the letter *na* retains the same shape, i.e. a vertical line touches a horizontal one in the middle. The medials are attached in the conventional ways. It is worth noticing that in some examples of *so, ro, po, bo,* etc., a single line serves for the *o* medial, but this is never used in the case of the letter *na*. There are always two strokes to indicate the *o* medial.

Labials

Though in the majority of cases *pa* retains its archaic form of a hook, certain new features can be observed which may be regarded as modern tendencies from the point of view of future development. These are, (i) the equalisation of the verticals (VIII. 26. i. iii; IX. 26. ii, iv; X. 26. iv, v; XII. 26. i; XIII. 26. i) and (ii) the angularity of the curve of the hook (VIII. 26. iii; XI. 26. ii, v; XII. '26. i; XIII. 26. i). Similarly, though the medials for *ā*, *e*, *i* and sometimes *u* and *ū* are attached in the old fashion; the medials for *o* and *u* are of more modern type. A single-lined medial, instead of two strokes, has very often been regarded as a later tendency.[1] This we find in many cases (IX. 26. v; X. 26. v). In the same way, the downward extension of the right vertical for *u* medial (VIII. 26· iii; IX. 26. ii; X. 26. iv; XIII. 26. i) has also been taken to be a later practice[2] But it is not correct to say that the older practice of adding *u* medial in the middle of the curve persists only in Bhārhut I,[3] which has been assigned to the later half of the first century B. C. by Dani,[4] because this can be seen in the inscriptions assigned to this century (IX. 26. iii; X. 26. iii & XII. 26. ii-iii).

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[1] Majumdar, N. G., *MS*, p. 265.

[2] Cf. Dani, op. cit., pl. IIIa; IVa; and Upasak, op. cit., p. 82.

[3] Cf. our Table I, line 16.

The letter *pha* is one of those letters which are used very rarely. Its shape is almost the same since the time of Aśoka; and the same old practice of adding *i* (IX. 27. i; X. 27. i) and *u* (IX. 27. ii) medials is followed. The short left vertical of *pha* at Bhārhut can be marked as, during the coming century, the short vertical becomes a characteristic of this letter.

The letter *ba* still continues its square shape but sometimes it is rectangular (IX. 28. v) which is not very important from the view point of development. In some instances, the angles are curved also (IX. 28. i, ii). As regards the attachment of the medial signs to this letter, there seems some confusion. Sometimes *o* medial is shown by extending the top line towards

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1. Majumdar, N. G., *MS*, p. 266.
2. Dani, *op. cit.*, p. 58.
3. *Ibid.*
4. *Ibid.*, p. 59.

left and right (IX. 2. v; XI. 28. vi) but in some instances two short bars shoot from the middle of the left and right verticals (IX. 28. vi). Similarly there is no definite practice regarding *u* medial also. This could be shown by extending the right vertical downwards (IX. 28. iii; X. 28. ii; XI. 28. iii) or by adding a downward stroke in the middle of the lower horizontal line (IX. 28. ii; X. 28. i; XI. 28. iv). For long *ū* medial two such strokes serve the purpose which form an angle on the lower horizontal line (XI. 28. v). But this is not all. As we will see in the Compound Akshara section of this chapter conjunct *bra* has also been shown in the same ways (Cf. VIII. 40. v; and VIII. 40. iv; XI. 40. iv). For that reason, one could have been confused with the other. Same uncertainty prevails in the case of *i* medials also. For example *i* and *ī* medials can be attached to the upper right corner (VIII. 28. ii. and XI. 28. i, ii respectively) as well as in the middle of the right vertical (VIII. 28. iii). This, however, does not creat any confusion.

The letter *bha* is also regarded as one of those letters which are most susceptible to change.[1] The standard Aśokan *bha* has got a broken right vertical,[2] though straight vertical *bha* is also not unknown[3] in the post-Aśokan period straight vertical *bha* becomes most frequent. But at Sāñchī in some cases older form also persists (XI. 29. i). Among the straight vertical *bhas*, legs are, very often, of equal length but sometimes the right leg is bigger than the left one (XI. 29. vi; XIII. 29. i). The sign for *o* medial is mostly of the straight line type, and *i* medial, in many cases, is a curved line but sometimes a slanting stroke (IX. 29. iii) serves its purpose. There is nothing new in the *ā*, *u* and *ū* medials which continue the older practice.

The letter *ma* can be seen in many shapes (Pl. III, line 30), all of which cannot be regarded as varieties (especially IX. 30. i-iii) because they have no bearing either upon the

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1. Majumdar, N. G., *MS*, p. 266.
2. Upasak, C. S., *op. cit.*, p. 88.
3. *Ibid.*

future development or on the present script. More or less they can be accounted for as due to carelessness. In some cases the lower circle is of a good round shape while in others its roundness varies. This variation paves the way for future development in which a triangular-based *ma* becomes the standard form.

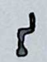
Semi-Vowels

During the century under discussion, wedge-shaped *ya* (IX. 31. ii) and double-curved *ya* (X. 31. ii; XIV. 31. ii) become rare but crescented *ya* (VIII. 31. i, iii; IX. 31. i; X. 31. iii; XI. 31. i-ii; XII. 31, i; XIV. 31. i) has been used in majority of cases. We notice, however, two major developments in this letter. Firstly, there is a marked tendency to reduce the middle vertical and equalise with the side ones. Though this can be seen in the stone inscriptions too, it is more emphasized in the coin legends (VIII. 31. i, iii). Secondly, there is a tendency to make the bottom of the letter flat (IX. 31. iii, iv; X. 31. i). These characteristics are important because of their role in the future development of the letter. We have noticed above that the coins were pioneers in the field of script technology. This is best illustrated in the form of this letter on the coins; specially *Yaudheya* coins. In these coin legends, not only are the verticals equalised but the two slanting strokes for the *o* medial (VIII. 31. iii) pave the way for its popularisation in the next century.

The letter *ra* does not show much variation. The straight line *ra* is most frequently used (Pl. III line 32) but the so-called 'cork-screw' *ra* can also be seen (XII. 32. i-iii). A peculiar formation of *ra* made by two curves placed one upon the other (resembling *ja*), which has already been noticed in the coin series No. 1 (VII. 25. ii), can be seen in the Sāñchī inscriptions also (IX. 32. iii). The sign for medial *o* in some cases is a straight line but in others it is two lines to the left and right of the letter. The left stroke is always at the top but the right stroke has been put anywhere on the right from a little below the top to the middle of the letter. There is a possibility of confusion because the *u* medial, which is also placed to the right but in the lower half of the letter (VIII. 32. ii), sometimes occupies its position to the middle of the letter (IX. 32 iii). *Anusvāra* is shown by a dot to the right above the letter (XIV. 32, iii).

Though the letter *la* resembles the letter *pa* in its formation, it does not seem to have many variations (pl. III, line 33). But the tendency to equalise the verticals and angularise the curve (IX. 33. iii; X. 33. ii). can be marked. This is responsible for the angular form of *la* of the first century A. D.

At Sāñchī we find a peculiar letter formation which has been read by scholars as *ḷa*.[1] There is another letter, supposed to represent the same sound, found at Mathura. Bühler reads the word, in which the letter is used as *kālavāḷa*.[2] The Sāñchī *ḷa* is something like ; and the Mathura one is like . Dani,[3] however, derives these letters from the Brāhmī letter *ṭa*. But this is not acceptable. Dani probably mistook the upper vertical of Sāñchī *ḷa* for the part of the *ī* medial, and hence derived this letter from Brāhmī *ṭa*. This formation does not explain the upper vertical of Mathura *ḷa*. In our opinion this letter closely resembles the letter *ḍa*. (cf. IX. 18. ii) and must have been derived from this letter or Aśokan *ṛa* which is formed by a dot put under the letter *ḍa*. Phonetically also this is closer to the letter *ḷa* which was later confined to the South Indian languages.

Dani ...	(ṭa)		(ḷa)		Sāñchī
	(ṭa)		(ḷa)		Mathura
Our theory	(ṛa)		(ḷa)		Sāñchī
			(ḷa)		Mathura

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[1] Majumdar, N. G., *MS*, pl. CXXXI, No. 187.

[2] Bühler, *EI*, Vol. II, Pl. opposite p. 379, No. 33.

[3] Dani, *IP*, p. 54, fig, 6. viii, and p. 55.

The dot in the Aśokan ṛa probably took the form of the lower tip in the Sāñchī *ḷa* and was again elaborated in the Mathura specimen.[1]

The lower circle of the letter *va* does not retain its perfect round shape; rather it varies (Pl. III, line 35). But finally it settles down to a triangular base form (VIII. 33. i, iv). At Sāñchī, we find a peculiar formation of this letter. Instead of a circle or a triangle, a square is appended to the vertical (IX. 35. ii). But as we shall see in the next chapter, this form did not get the approval of writers in general, because a triangular *va* was a logical outcome of a letter with circular appendage. Medial signs are added in the conventional way.

The first letter of the Barli fragmentary inscription has been read as *vī* by Haldar,[2] and D. C. Ṣircar suggests it to be a compound letter *dva*[3] (XIV. 35. ii). But both readings are hardly convincing. We never find an *ī* medial turned to the right (see above pages **14-15**, Chapter I) and there is no reason to place this inscription in the fourth-fifth century B.C., only on account of this doubtful reading,[4] because 'its palaeography otherwise belongs to the first century B.C.'[5] And on the other hand the suggestion of Sircar is also not acceptable because, in the words of Dani, 'the form of *da* opening on the right is not seen in this period save for the exceptional script of Bhaṭṭiprolu.'[6] We agree with Dani that 'in its fregmentary nature it is difficult to suggest any definite reading'.

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[1] Also cf. Upasak, *op. cit.*, p. 74 and Bühler, *IP*, pp. 30 & 55. However, Bühler's derivation of this letter from *ḍa* is also not fully justified as we have Aśokan *ṛa* to explain its formation. Ofcourse, Aśokan *ṛa* itself is derived from *ḍa*.

[2] *IA*, 1929, p. 229.

[3] *JBRS*, 1951, p. 35.

[4] *IA*, 1929, p. 229.

[5] Sircar, D. C., *JBRS*, 1951, p. 36, however, assigns it to the same date as the Bhilsa inscription of Bhāgavata.

[6] Ḍani, *IP*, p. 54.

Sibilants & *Ha*

The letter *śa* in the Ghosundi inscription (XII. 36. i-ii) is somewhat angular while on the coins it has developed into a curved form. But the letter *sha* is met with in its advanced form with almost equalised verticals and angularised form on the coins (VIII. 37. i) as well as in the regular inscriptions (XII, 40. iv). These letters occur less frequently.

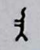
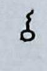
On the contrary, the letter *sa* is used most frequently and it exhibits many variations of form. Here we prefer to classify this letter into two main types, viz. curved hook type and angular-hook type. The former is the same as found in the earlier periods while the latter type is a developed form. There is also a tendency to equalise the verticals and this is to be seen specially in the latter type (VII. 38. ii-iv; IX. 38. ii; X. 38. ii etc.). The medial for *o* is a single line as well as two separate strokes. Similarly the *u* medial is appended to the middle of the hook as well as in alignment with the right vertical, as in the letter *pa*.

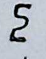
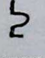
Like the letter *sa*, *ha* also can be classified into two main types, curved and angular (Pl. III, line 39). The angular type represents a more advanced form and is generally found on the coins (VII. 39. i-ii). But it can be seen in inscriptions also (X. 32. i; XI. 39. i, iv). The medials are added in the conventional way.

COMPOUND AKSHARAS

The compound letters are very interesting in this period. Very often a certain amount of immaturity and uncertainty is marked in combining two letters. For example, a combination of letters *ba* and *ra* is most significant for two reasons; firstly the secondary letter *ra* is shown by a simple vertical line and not by a serpentine line, and secondly, it is sometimes added in the middle of the letter *ba* (VIII. 40. iv and XI. 40. iv) and sometimes shown by extending the right vertical downwards

(VIII. 40. v). This creates confusion because the same techniques are adopted for adding *u* medial to this letter (see above p. 73). Similar confusion exists in the combination of *na* and *ha*, and *ṇa* and *ha*. The letter *ha* joints *na* at different points. It may touch the right half of the base of the letter *na* either at the right end (IX. 40. iii; XI. 40. iii) or in the middle (IX. 40. ii) and sometimes the middle vertical is extended downwards to form the left vertical of subscript *ha*, , which might easily be read as a combination of *ka* and *ha* (X. 40. i); a difficult combination. The uncertainity of the combination of *ha* and *ma*, or *ma* and *ha* is also remarkable (VIII. 40. vii and XI. 40. v). Probably this is due to the peculiarities of pronunciation. The same word was perhaps pronounced by some as *brahma* and by others as *bramha*. The letter *ha* is added to *ma* either at the bottom of the circle (XI. 40. v) or to the right of it (XI. 40. vi).

The combination of *ra* with other letters is also very interesting. During the period of Aśoka, the combination was uncertain. As a rule the letter pronounced first was placed above the letter pronounced next. But in Aśokan inscriptions, we notice that sometimes *ra* finds the upper place even when it was not intended to be pronounced first, for example, *trai*  ; *rva* or *vra*  etc. On this point, Upasak observes :

> "When these signs are closely examined, it is evident that no uniformity was maintained in attaching them. The extra stroke sometimes appears at the top, sometimes below and sometimes even in the middle. Its direction is also not definite as it goes at some places to the right, and other to the left. How can there be so many signs for a particular letter ? For instance, in REJ. —I. 2, a shape thus—  is read by Hultzsch as *dra*, while in the next line stroke for *R* comes below—  . In later ages, the use of *R* is very frequent; its form in combination is uniform and its sign is very distinct. In all probability these signs, accepted as *R*

by Hultzsch, are errors, mostly on the part of the engraver".[1]

It is clear from the above passage that Upasak holds two persons responsible for this; firstly the decipherer, Hultzsch,[2] and secondly the engraver. But actually neither of them was responsible. This and many similar errors were to be expected from the Brāhmī writing when it was in its primary stage during the time of Aśoka. In the period under study, the indefiniteness and uncertainty was not over and traces of this can be seen in the combination of the letters, though considerable stability was gained by this time. The letter *ri* was added to the right half of the initial letter, and if intended to be pronounced before a letter, it was placed above that letter, e. g., *rsha* (XII. 40. iv). Mostly this letter was in the serpentine or the so-called cork-screw form, but in some cases it was a straight stroke, e. g. *ra* in *bra*. At one place, on a coin, *ra* in *tra* is shown by slightly bending the right leg of *ta* (VIII. 40.iii). The letters *kra*, *ḍra*, *dra*, *tra*, *pra* etc. are as usual. In this period we come across combinations like *bhyāṁ* and *rsha*, which are due to the fact that Sanskrit also was being attempted in this script. This fact necessitated the addition of many new signs in Brāhmī.

In this period we notice some other peculiarities also. At Sāñchi on a pavement slab (Marshall, *MS*, pl. cxxx iv. 17) we find an example of reversed writing. This short inscription reads from right to left except the last word, *dānaṁ*, which reads in the usual way. This can be nothing but the fancy of the writer. Such enthusiastic expression can be seen in the double-lined letters of the two ground railing inscriptions of Stūpa II at Sāñchī (Marshall, *MS*, pl. cxxxvi. 9 & 11).

Some letters have also been found with peculiar shapes. At Sāñchī we notice a letter which resembles *ga* but has been read as *kha* (*pokhareyakasa*, Marshall, *MS*, pl. cxxxvi. 25). On a casket found in Stūpa No. III at Sāñchī (Marshall, *MS*, pl. cxxxx. s) we see that the upper vertical of *bha* is attached to the left instead to the right. Similarly some peculiar forms of the letter *ma* can also be noticed in the figure below :

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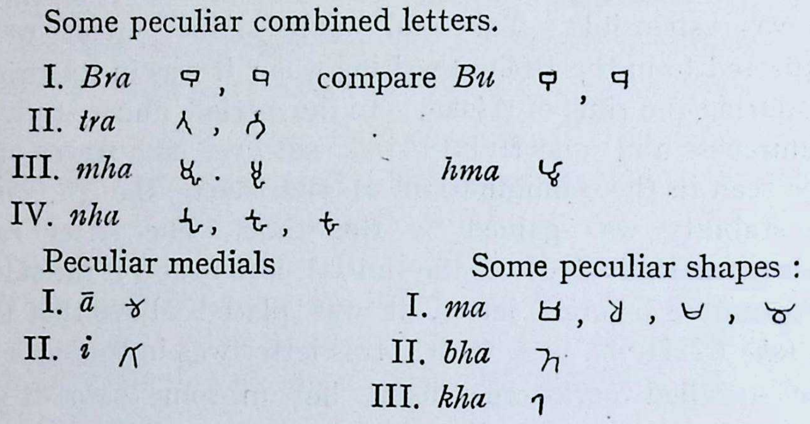
[1] Upasak, *HPMB*, pp. 120-21.

[2] *Ibid*, p. 120.


Some peculiar combined letters.
I. *Bra*
compare *Bu*
II. *tra*
III. *mha*
hma
IV. *nha*
Peculiar medials
I. *ā*
II. *i*
Some peculiar shapes :
I. *ma*
II. *bha*
III. *kha*

In an inscription on the railing of Stūpa I at Sāñchī we find that a slanting stroke has been used for the *i* medial (Marshall, *MS*, pl. cxxviii. 18). In another inscription at Bhārhut (Cunningham, *Stūpa of Bhārhut*, pl. lvi. 45), *ā* medial has been put to the left of the letter *ma* instead of right.

In a casket inscription of Stūpa III (Marshall, *MS*, pl. cxxxx. r), we see a peculiar spelling for the word *dhitu* (daughter). Instead of writing it with the letters *dhi* and *tu* it has been spelt as *di* + *hi* + *tu*.

With all these remarks it can be said that experiment was still going on during this century and writing was still unconventionalised. Some elements of uncertainty were still present in the Brāhmī script. But as compared to the time of Aśoka it had considerably advanced and it was gaining the capacity to write the Sanskrit language also.

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2. *ZDMG*, Vol. XL, Pls. I-II.

V. Ghosundi Stone Inscription

1. *EI*, Vol. XVI (1921-22) and Plate.

VI. Bhilsa Inscription of Bhagavata

1. *Memoirs of Archaeological Survey of India*, No. 5, Pl. XXVI.

VII. Barli Fragmentary Inscription

1. *Indian Antiquary*, 1929, pl. facing p. 229.

CHAPTER V

THE ROLE OF THE SAKA KSHATRAPAS

(Early Ist Century A. D.)

Until the close of the first century B. C., the Brāhmī script developed uninterrupted on the old traditional lines established during the time of Aśoka. Its growth was very slow and to some extent it was static. The tool and the technique of writing was almost the same as used in the Aśokan inscriptions. The changes which had taken place so far were mainly due to the fact that the art of writing was becoming known to more and more persons with increased chances of introducing individual mannerisms and personal habits. This and the teacher-taught traditions paved the way for freaks, seemingly developing into regional traits. But by the close of the first century B. C. the Śakas established themselves in north-west India and they introduced some revolutionary changes in the art of writing Brāhmī script. We have observed earlier that the tendency to equalise the verticals of letters like *pa*, *la*, *sha*, *sa* and *ha* and to angularise the curves had already started during the first century B. C. This change was led by the coins (Table VIII of Plate III), obviously influenced by the Greek lettering. The Śaka Kshatrapas used an edged pen for writing which gave a new face to the Brāhmī letters, producing an effect not dissimilar to Greek lettering. Dani rightly observes that 'this was not an isolated phenomenon' and 'the well known use of square omicron on the Śaka and Parthian coins' can be related to this.[1] The inscriptions of the Kshatrapas of Mathura are well marked for their neat and well formed letters. During this period individual letters got special treatment, the main attention being given to the top of the letters. The triangle-like formation at the head of the letters *ka, ra, la, va* etc. was not deliberate, but it was produced by the skilful wielding of the new writing tool. This top triangle became so popular that very soon it was imitated by less skilled writers, giving an entirely new shape to some letters, e. g., *va* (Plate IV, Tables XVII and XVIII, line 34). These of course, could not get popular acceptance. Besides this top formation, the verticals of the letters were equalised and angularised in a very elegant manner. The *i* medial took a beautiful long flourish. Some other letters also got new shapes which will be discussed in detail below. This new technique received wide acceptance and was known in various degrees of perfection throughout the sub-continent within a half century. Another contribution of this 'new-pen-style' was that hence onwards the growth of the script and the changes in it were more rapid. The first century A. D. is the most important period of the history of the Brāhmī script simply because the changes introduced at the beginning of this century proved to be a turning point, paving the way for accelerated changes and consequently developing into regional scripts. For the first four centuries of its history, the Brāhmī script remained practically the same for the whole sub-continent. But by the end of the fourth century A. D., script-wise India was split up into many regional pockets. One should not think that only the 'new-pen-style' was responsible for all this. There were other factors also which brought about the changes, and we will deal them in some detail in the next chapter. Here we would only like to emphasize that this new style of writing, was but an important beginning of future changes.

In the latter half of the first century A.D., the Kushāṇas became politically important in Northern India and Kanishka started the tradition of systematically dated inscriptions which was also followed by his successors. Such a system of reckoning became so popular that the rulers of Kauśāmbī, Bandhogarh (Rewa) and other places started dating their inscriptions in this era. It has been suggested that these eras may be the same as the era used by Kanishka and his successors.[1] Though the problem is far from settled it is believed by a majority of scholars that the Śaka era beginning from 78 A. D. is the same as that which was started by Kanishka.[2] The inscriptions of Kanishka and his successors will form the subject matter of the next chapter. In this chapter we will take up and analyse only those inscriptions which are considered pre-Kushāṇa.

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[1] *IP*, p. 52.

A. Führer assigns the two Pabhosa inscriptions to the second or first century B. C.[3] But a comparison of these with the Kshatrapa inscriptions of Mathura leaves no doubt about their belonging to the first century A. D. On the same considerations the Ayodhyā inscriptions of Dhana(deva) can also be placed in this century.[4] These two sets of inscriptions clearly show the use of the 'new-pen'. The Bhārhut *toraṇa* inscription of Dhanabhūti mentioning *suganaṁ-raje*[5] and the Bodh-Gayā inscriptions on the fragmentary railings[1] are probably written with the traditional pen, but the treatment of some letters like *va, ha, pa, ra* etc. (specially in the Bodh-Gayā inscriptions) and the long flourish for the *i* and *ī* medials indicate that the script of these inscriptions is too advanced to be confused with the older types. This can be assumed to belong to the transitional period when the use of new pen style was known but not introduced in the eastern parts of northern India. There is a marked difference in the palaeography of the Bhārhut toraṇa inscription of Dhanabhūti I and the Mathura inscription of Dhanabhūti II.[2] According to Cunnigham[3] Dhanabhūti II was the grandson of Dhanabhūti I. The vast difference in the characters of these two inscriptions is not due to a long gap of time between their issuers but due to the differences in the local writing traditions of these two places; Mathura being more informed about and susceptible to the new changes while in the east old practices persisted.

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[1] Dani, *IP*, p. 90.

[2] Sircar, D.C., *The Age of Imperial Unity*, pp. 143-44.

[3] *EI*, II. 243.

[4] Cf. Sircar, D.C., *SI*, p. 80, fn. 1.

[5] Cunningham, *Stūpa of Bhārhut*, p. 128, pl. liii. 1. Prof. A. L. Basham, while going through the typescript notes, 'Without referring again to the actual inscription I can't be sure, but to put the Dhanabhūti inscription in the first century A.D. involves many chronological difficulties, and I must admit I'm doubtful'. Here I want to point out that the Śunga dynasty was ruling in Ayodhya in c. Ist century A.D. is clear from the Ayodhya inscription of Dhana (deva) and therefore the mention of the Śungas in the Bhārhut *toraṇa* inscription of Dhanabhūti is not entirely unexplainable because they might have held their nominal sway over this area through some feudatory, if not directly. R. P. Chanda also accepts the *toraṇa* inscription to be of a later date than those on the railings of the Bhārhut stūpa. (cf. *Mem. A. S. I.* No. 1. pp. 14-15 and also supra pp. 58-61).

In the western region Sāñchī and Mathura were the two most important places from the viewpoint of writing activities, the latter gaining accelerated importance every day. From Sāñchī the inscriptions on the Stūpa III, the East, South and West gateway inscriptions of Stūpa I, the relic casket inscriptions from Stūpa I and some inscriptions from the railings of Stūpa I (Marshall's Nos, 90, 283, 322, 324 and 350) have been studied and analysed in Table XVI on plate IV. These are labelled as Series III and assignable to the Ist century A. D.

The inscriptions from Mathura are classified into two groups. One group is formed of those inscriptions which bear the names of the Kshatrapas and the other group consists of those which have been taken to belong to the pre-Kushāṇa

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1. Cunningham, *Mahābodhi*, pl. X.
2. Cunningham, *Stūpa of Bhārhut*, p. 130 and Lüders, *Mathura Inscriptions*, p. 212, 187.
3. *Op. cit.*, p. 129.

period of the Ist century A. D. A list of the inscriptions consulted and analysed is given at the end of the chapter.

In the eastern region besides Bhārhut and Bodh Gayā Kaliṅga is also noted for its writing activities being carried over by the kings of Mahāmeghavāhana dynasty of Orissa. The Hāthīgumphā inscription of Khāravela of this dynasty is one of the most disputed documents not only because of its contents but also for its palaeographical peculiarities. The main reason for this seems to be its irritably worn out condition which gave rise to several variant readings. A discussion of these does not fall within our scope and therefore we will take up only its palaeographical characteristics which, according to our analysis, indicate its belonging in the early Ist century A. D. This epigraph has variously been placed between the 3rd and 1st centuries B. C.[1] But we have reached early first century A. D. for its date not only on palaeographical considerations but also from some other ratiocination.

There are at least two considerations for determining the date of Khāravela. These are (i) the mention of contemporary kings and, (ii) references to era, if any, in his Hāthīgumphā inscription. As regards the first there are three names of kings which could be desciphered with various degrees of satisfaction. Of these the reading of the name of Sātakarṇi only is beyond dispute. Of the other two names of *Bahasatimitam* and *Dimata*, very often identified with Demetrius the son of Eythedemus, the reading of the latter is extremely doubtful.[2] Considering the late date of this inscription and the doubts prevailing about the exploits of northern India by Demetrius and also the paucity of evidence to think of Mathura as his capital, it is impossible to arrive at any conclusion on this basis. Similarly the identification of *Bahasatimitam* or *Bahapatimitam* with Pushyamitra Śuṅga 'merely on the ground that Bṛihaspati (Jīva) is the regent, *nakshatrādhipa*, of the *nakshatra* or zodiacal asterism Pushya, also named Tishya, in the constellation Cancer or Carb, cannot be regarded as final in the absence of more convincing evidence'.[1] In no case Khāravela could be regarded as 'a contemporary of Pushyamitra who ruled from about 187 to 151 B. C.'[2]

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[1] *CHI*, p. 642 and pp. 481 ff. See also Sten Konow, *Acta Oriantalia*, I, 1923, p. 12 ff., for various dates proposed.

[2] Cf. Tarn, W. W., *GBI*, pp. 457-58. "In 1919 the late Dr. Jayaswal and the late Professor R. D. Banerji made a fresh examination of the rock, and Jayaswal announced that he had read the word Yavanarāja, followed by the proper name Dimata; he has stated that he found the syllable-*ma* clear and ultimately with great difficulty read Dimat (a). This reading, and its interpretation as the Greek king Demetrius, were accepted both

But the case of Sātakarṇi is worth considering who seems to be Sātakarṇi the First, the third king of the Sātavāhana dynasty, variously been assigned a date ranging between 3rd century B. C. to 1st century B. C. But the Purāṇas provide us with a definite clue as regards the date of the beginning of the Sātavāhana dynasty. In the Purāṇic lists of the future kings[3] it is stated 137 years after the accession of Chandragupta Maurya the Śuṅgas will rule for 112 years and then the Kāṇvāyanas for 45 years whose last king Suśarman will be killed by the Āndhra Simūka (also misspelt as Śiśūka, Sindhūka, and Śipraka in the Purāṇas). Thus 294 years had

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by Banerji and by Dr. Sten Konow. Konow, however, said of his own reading : 'I can see Yavanarāja, as read by Mr. Jayaswal, and of his Dimata the *ma* is quite legible' ; he did not say if he could see the supposed faint traces of the rest of the word......Jayaswal's version in 1927 was : 'On account of the report (uproar) occasioned by the acts of valour i. e. the capture of a fortress etc. previously mentioned the Greek king Demet (rios) drawing in his army and transport retreated to abandon Mathurā.' Then in 1928 Jayaswal puts forward a totally different view : what in the inscription refers to, he said, is the Greek king (he does not say Demetrius) being beaten off from Pataliputra when he attacked it and retreating to Mathura."

[1] Raychaudhuri, H. C., *PHAI*, p. 374.

[2] *Ibid*, p. 378.

[3] Pargiter, *DKA*, pp. 70-71.

passed away after the accession of Chandragupta, say about 324 B. C., when the Sātavāhana dynasty was established by Simūka, a date which falls in 30 B. C.[1] Simūka is said to have ruled for twenty three years and his successor Krishṇa for 18 years (sometimes 10 years). Thus the date of Sātakarṇi, who succeeded Krishṇa, falls in c. 10 A. D. (c. 0 A. D.). We agree with Prof. Raychaudhuri that Simūka was for some years a contemporary of Suśarman (40-30 B. C.) and flourished in the first century B. C.', but are hesitant to accept the view that his reign period be counted from sometime before 30 B. C., keeping in view that he established the Sātavāhana power after killing Suśarman in 30 B. C. Therefore it seems more probable that Sātakarṇi started his reign sometime in the beginning of the 1st century A. D. whose younger contemporary was Khāravela because in the second regnal year of the latter Sātakarṇi seems to be a big power.

The second consideration is the mention of some dates in this epigraph of Khāravela. In the line 16 of the inscription earlier scholars read and interpreted '165th year of Rāja Muriyakāla'.[2] But now nobody accepts the existence of a Maurya era in this inscription as the revised reading does not permit any such assumption.[3] The second passage, which mentions some date, runs as follows in the sixth line of the epigraph : *Pañchame cha dānī vase Naṁda-rāja ti-vasa-sata o (ghā) ṭitam Tanasuliya vāṭā paṇāḍim nagaraṁ pavesa (ya) ti.* Here Nandarāja has been taken to be a king of the Nanda dynasty of Magadh, and the expression *ti-vasa-sata* is either 103 or 300 years. However, there are good reasons for believing that this cannot mean 103 or 300[4] years but rather three centuries. It should not be taken, as a matter of fact, 300 years in 'round number'. Some scholars have tried to count this from 324 B. C.,[1] the supposed date of accession of Chandragupta Maurya, or two years earlier i.e. from 326 B. C.[2] 'when the Nanda dynasty may have been overthrown'. In our opinion this loose expression of 'three centuries' may be counted from any date in the late 4th century B. C. when Nandas were in power and might have invaded Kaliṅga, and does not effect the date of Khāravela who flourished in the early 1st century A. D. De la Vallee-Poussin maintains Khāravela to be 'apres, beaucoup apres 150', probably early 1st century A. D.[3]

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[1] Raychaudhuri, H. C., *op. cit.* pp. 403 ff. and Sircar, D. C., *AIU*, p. 195.

[2] For detailed discussion see *CHI*, pp. 481-82, and, *PHAI*, p. 373 ff.

[3] Sircar, D. C., *SI*, p. 218, fns. 13, 14, 15 for the Sanskrit version of the expression p. 221.

[4] For arguments see Banerji, R. D., *JBORS*, 1917, pp. 495 ff.

As regards the palaeography of this epigraph it undoubtedly belongs to the 1st century A. D. We need not agree with Dr. Sircar who maintains that 'on grounds of palaeography, it is to be placed later probably than the Nānāghāṭ records and certainly than the Besnagar inscription of Heliodoros'.[4] He further maintains about Sātakarṇi of the Hāthīgumphā inscription that 'This king seems to be that Sātakarṇi who ruled shortly after the husband of Nāganikā according to the Purāṇas. Palaeographically the Hāthīgumphā inscription is slightly later than the Nānāghāṭ records. It may be pointed out that the letters of the Sāñchī inscription of Sātakarṇi......resemble the script of the present record and may belong to Sātakarṇi II. Of course, if this slight development is overlooked, we may identify both these Sātakarṇis with Sātakarṇi I. But it should be remembered that the big Nānāghāṭ record was possibly engraved after the death of that king'.[5] It seems that Dr. Sircar is hesitant as regards the identification of the Sātakarṇis of the Nānāghāṭ and Sāñchī inscriptions simply, perhaps, because of the differences in the characters of the records. But once one realises the fact that in the remote areas older forms persist longer, there can be no difficulty in understanding the

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1. Raychaudhuri, H. C., *op. cit.*, p. 406.
2. Sircar, D. C., *op. cit.*, p. 215, fn. 7.
3. L. de la Vallée-Poussin, *L'Inde aux temps des Mauryas et des barbares, Grecs, Scythes, Parthes et Yue-tchi*, p. 198, as quoted in *GBI*, p. 457, fn. 3.
4. Sircar, D. C., *op. cit.*, p. 213, fn. 1 continued on following page.
5. Sircar, D. C., *op. cit.*, p. 215, fn. 1.

causes of the more advanced forms of the characters of the Sāñchī inscription on one hand and less advanced forms of the Nānāghāṭ inscription on the other. In Western India the Nānāghāṭ inscription of Nāgnikā is perhaps the first big inscription after those of Aśoka, and after this remarkable advancements can be marked which took place within a century during the reign of the Western Kshatrapas and the Sātavāhanas in this area. This can be explained as due to close contacts of this part of India, during this period, with the North as well as North-Western India. Similarly Orissa also was less informed of the new developments and kept adhering with the older forms for some time.

The characters of the Hāthīgumphā inscription are analysed in Plate IV. A.

Table XV contains letters found on coins and seals which are considered to be of the first century A. D. The coins of the Kuṇindas, the Pañchālas, the Audumbaras and the Kshatrapas of Mathura and the coins from Kauśāmbī, Ayodhya and Almora have been assigned to this period. We find no palaeographic ground to assign some coins from Kauśāmbī, like that of Dhanadeva, and those from Ayodhya to a period after the Kushāṇas.[1] Absence of the Kushāṇa epigraphs in this area after Kanishka and the existence of the records of the Magha rulers of Kauśāmbī and Bandhogarh area are sufficient reasons to believe that the eastern portion of the Kushāṇa empire slipped away from the hands of the Kushāṇas soon after the death of Kanishka. The provenance of the coins of Vāsudeva from Kauśāmbī[2] also does not effect our scheme. However, the palaeography of coins is doubtful and too much reliance on it is risky. Many new Pañchāla and other coins have come to light and have been published in the volumes of *JNSI*. Some of them have been referred to here also. Some seals also have been considered and analysed. A seal from Kauśāmbī has been

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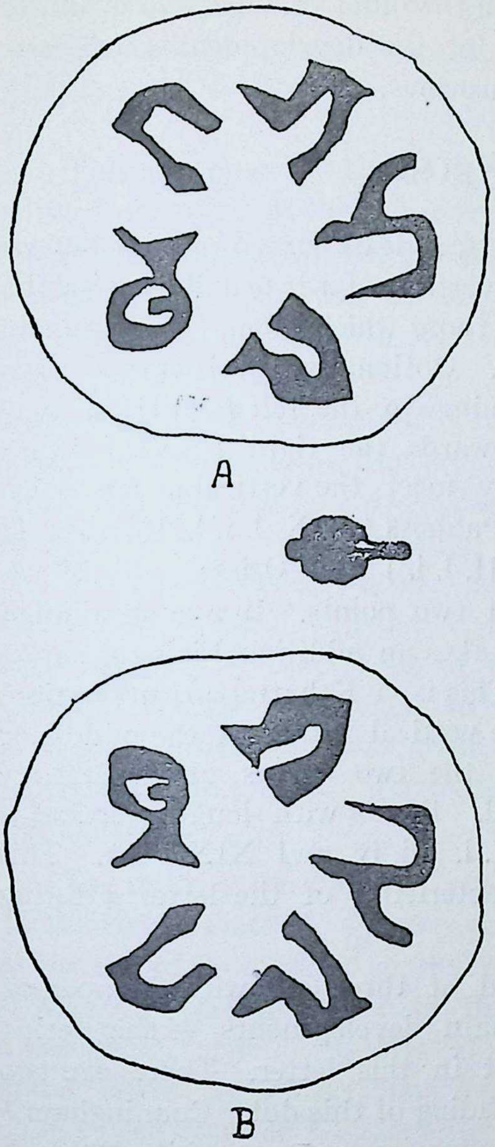
1. Dani, *IP*, p. 62.
2. Chakravarti, N. P. ,*EI*, XXXI, 175.



The Seal of Hathipāla
A. As published in *JNSI.*
B. After sealing.

published by S. C. Kala[1] and referred to by K. D. Bajpai.[2] Both the scholars read the legend as *Vagipalasa.* (see Fig.) The order of the letters does not permit this reading. The inscription is on a seal and is intended to be read after sealing. Dr. Bajpai overlooked this fact and has read it directly. If read after taking impression the seal clearly bears the name *Hathipalas.*

The characters of this seal may belong to the early first century A.D. A coin has been published by R. R. Tripathi in *JNSI,*[3] bearing the legend *Hathiparasa* which he thought to be a corrupt form of *Hastipurasya* or *Hastināpurasya.* The reading of this coin may be revised as *Hathipalasa* and this person may be regarded as the issuer of both the antiquities.[4]

With these introductory remarks we will now take up individual letters and trace how far they have deviated from the older practice and evaluate how much they are responsible for the development which took place during the time of the Kushāṇas.

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[1] *JNSI,* XXIV, p. 137, Pl. II. 12.

[2] *Ibid,* p. 16, fn. 1.

[3] Vol. XXIV, p. 20, pl. II. 1.

[4] For more detailed discussion see author's article in *JNSI,* Vol. XXXI, pp. 143-50.

VOWELS

To begin with the vowels, at least six vowels are known to be used in this period. The vertical of *a* is usually a straight line with thick top-head except those which come from a remote area like Bihar and Orissa etc. Optionally, this is curved also, sometimes the lower end turning to the left (XVIII. 1. iv & XIX. 1. i.) and sometimes towards the right (XVIII. 1. ii). The left hand curves generally meet the vertical at one point but at Sāñchī III (XVI. l. i.) Pabhosā (XIX. l. i.), Bhārhut II (XX. l. i.), Bodh-Gayā (XXII. l. i.) and Orissa (Pl. IV. A. 1. l. ii), they often touch it at two points. In a good number of cases the lower curve of *a* takes an additional inward curve, producing a beautiful effect. This is a Kshatrapa contribution. The medial sign for *ā* meets the vertical either at the middle or at the lower half. Very often the two curves at the left are equal in length to the vertical. But *a* with longer vertical is also found (XVII. l. ii; XVIII. l. iii, iv and XIX l. i.). This becomes one of the chief characteristics of the letter *a* during the following centuries.

The letter *i* is formed of three dots with the apex at varying points. One of the main developments of this period is the addition of a fourth dot in this letter. There are two clear opinions as regards the reading of this dot. Cunningham,[1] Ojha[2] etc. take the dot for *anusvāra*, while Bühler[3], Dani[4] and others regard it a sign for long *i*. Dani gives no reason for it but Bühler argues like this; 'Though this (Cunningham's) reading is possible, I consider it improbable, as it

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1. *Mahābodhi*, p. 15.
2. *Prāchīna Lipi-Mālā*, p. 51.
3. *IP*, p. 52 and *EI*, II, p. 201.
4. *IP*, pp. 53-54.

would be necessary to assume for *i* a not tranceable form, consisting of two dots side by side with a third dot above on the left, thus, ⁚ . ’.

This argument of Bühler is not convincing at all. An objective observation of this letter reveals that perhaps there was no fixed convention about the position of the dots. They could have been placed at the will of the writer. To make an *i* only three dots were needed irrespective of their position. An exactly opposite situation of the dots can be found in the Mathura stone bowl inscription[1] (XVIII. 2. i) where two dots are placed in a line side by side and the third one is below the left dot. Secondly, in one of the Bodh-Gayā inscriptions[2] the three dots of *i* are in a position with the apex at the top (XXII. 2. i) and the fourth dot is in the right upper portion of the letter. Thirdly, a single dot has never been used for any purpose other than to denote an *anusvāra*, never as a long *ī* medial. Fourthly, in every case the reading *iṁ* gives sense, like *iṁda* or *iṁdra*, while long *ī* presents a peculiar conjunction like *īd* or *īdra*. Thus this fourth dot of *i* must be read as *anusvāra*.

The letter *u* continues its older form of an angle opening to the right (Plate IV, line 3 and Pl. IV A, line 2). Sometimes the top of the vertical is thickened (XVII. 3. i; XVIII. 3. i and XX. 3. i), and in many cases the horizontal line is shorter than the vertical one. In one of the Pabhosā inscriptions[3] we find a letter resembling long *ū* (XIX. 3. i) the reading of which has been doubted.[4] The letter is clearly a long *ū*.

We find one *e* which has its apex at the top (XVIII. 4. i). The triangle of *ai* in the Hāthīgumphā has also its apex at the top (Pl. IV A. 4. i) while that of *e* is towards right (Pl. IV A.

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[1] *EI*, XIX, 68.

[2] *Mahābodhi*, pl. x.

[3] *EI*, II, p. 242, No. 1.

[4] *Ibid*, fn. 10.

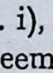
3. i). The letter *o* is formed by adding a horizontal stroke at the top of the left of the letter *u*. In many cases the letter seems to have been drawn in one stroke (XVIII. 5. i, ii). On coins it takes a more cursive shape (XV. 5. i).

CONSONANTS

SIMPLE AKSHARAS

Gutturals

In this period the vertical of *ka* was lengthened; in some cases the top-head being a triangular one. Dani[1] observes that 'this top-head formation was deliberately done. It was implied in this new process of writing itself'. This is true for the skilled writers only. This triangular head became so popular that less skilled writers started making it deliberately. As a result of this we find peculiar forms of some letters, e.g., *va* (XVII. 34. iii-vi; XVIII. 34. i-iv etc.) and *ta* (XVIII. 20. iii, vi) with hollow head-marks in various stages. Such a formation of *ta* was accepted at later stages in some areas, though it developed through line-head mark, while in the case of *va* the hollow head did not get popular support. We will take up this point later while dealing with these letters. Returning to *ka*, we may observe that the horizontal cross is a straight line in many cases, but sometimes it takes the form of two downward slanting strokes (XVIII. 6. iii) which became a characteristic of later periods. The head-mark of this *ka* is also noteworthy, especially in the Hāthīgumphā inscription (Pl. IV A. 6. i).

The shape of the letter *kha* is entirely changed, due to a triangle being appended to it instead of a dot or circle. Though occasionally we find *kha* with a dot (XVI. 7. i. Pl. IV A. 7. i, ii), the triangular *kha* becomes most popular. The hook of this letter is also shortened (XVIII. 7. i, ii; XV. 7. i), though in Bodh-Gayā it is longer (XXII. 7. i). This letter seems to have been written in one stroke without lifting the pen  .

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[1] *IP*, p. 52.

The angle of *ga* changes into a fine curve (Pl. IV, line 8) while the curved from of *gha* became angular (Plate IV, line 9 & Pl. IV A, line 8). The outer vertical of *gha* are equalised, but the middle vertical varies in size. In some cases it is equal to the outer verticals, (XV, 9. i., II) but in others it is shorter (XV. 9. iii; XVI. 9. ii; XVII. 9. ii, iii; XVIII. 9. i). In one case the middle vertical is longer than the two outer ones (XVIII. 9. ii), but this is by no means a representative example. At Bodh-Gayā and Hāthīgumphā the left vertical is longer than the other two (XXII. 9. i and Pl. IV A 9. i) which reminds us of the earlier *gha* with its flat base.

Palatals

The letter *cha* in Bhārhut (XX. 10. i); Bodh-Gayā (XXII. 10. i) and Sāñchī III (XVI. 10. i, ii) represents the earlier *cha*, though the Sāñchī III ones are more advanced than the former two. The loop of *cha* develops into a rough quadrangular form (XX. 10. i, XVII. 10. i and Pl. IV A. 10. ii) and takes circular (XVIII. 10. i) and oblong (XVII. 10. ii) shape and finally develops into a beautiful crescentic loop (XVIII. 10. ii). Its vertical also is gradually shortened and then disappears, leaving a triangular head-mark (XVIII. 10. ii). But this is not the final shape which it takes in the later periods. Its vertical persists throughout, only disappearing occasionally.

Though *chha* with bisected circle appears in this period (XVII. 11. ii and XX. 11. ii), a double-looped *chha* becomes the standard form (XVI. 11. i, ii; XVII. 11. i; XIX. 11. i, XXII. 11. i and Pl. IV A. 11. i). The vertical of this letter is also reduced and in some cases has a thick triangular head-mark (XIX. 11. i).

The curved *ja* (XV. 12. ii; XVII. 12. i; XVIII. 12. ii; XX. 12. i, ii and XII. 12. ii and Pl. IV A. 12 ii) continues side by side with the angular ones (XV. 12. i; XVII. 12. ii; XVIII. 12. i and XXI. 12. i). In angular *ja* the vertical is generally straight, though at Ayodhya, Bodh-Gayā, and Hāthīgumphā, it is curved. They stand half-way between the angular and the curved ones.

The letter *jha* is rarely found and continues its older form with minor differences which were due to the 'new-pen' (XVIII. 13. i, ii), and the same is true also for the letter *ña* (XIX. 14. i; XX. 14. i).

Linguals

The semi-circle of *ṭa* (XVIII. 15. i, ii; XXII. 15. i) and the full circle of *ṭha* (XVI. 16. i; XVII. 16. i) continued. The influence of the 'new-pen' is clearly marked in the letter *ṭā* of the Gaṇeshrā inscription of Ghaṭāka.[1] But the letter *ḍa* becomes more slanting and cursive. Its top vertical is shortened and the lower one is lengthened and slightly curved towards the right (XVII. 17. ii. iii). The letter *ḍha* (XIX. 19. i) is also marked with a triangular top-head and the tip of the loop turns into a circle at the end. Ṇ*a* continues the older form. In some cases the lower and the upper horizontal lines are curved (XIX. 19. ii, Pl. IV A. 16, i). This is an advanced form of this letter.

Dentals

The letter *ta* mostly continues its curved form, though at Bhārhut II an angular form is also to be seen (XX. 20. i, ii). The triangular head-mark (XV. 20. i; XVI. 20. ii; XVIII. 20. iv; XXI. 20. i. Pl. IV. A. 17. i, ii) seems to be standard in this period. *Ta* without any head-mark (XVI. 20. i) also continues. In some cases *ta* with line-head mark is also noticed (XVIII. 20. i, ii). But the triangular head-mark seems to have become so popular that in its imitation hollow marks were added to this letter (XVIII. 20. iii & vi). This is somewhat different from the well known box-headed variety of Central Indian script[2] where the main letter is appended to the box-head by means of a vertical line. In this case it can be nothing more than an attempt to initiate the triangle head-mark. In the latter example cited above (XVIII. 20. vi), the shape of the hollow mark is almost triangular, while in the former it is a crude square. The main letter is directly appended to it without a vertical. We find one more *ta* without vertical (XVIII. 20. v), to which two strokes of *o* medial are attached starting from the curve of *ta*.

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[1] *ASI, AR*, 1911-12, pl. LVIII. 17.

[2] Cf. *CII*, III, pl. xlv.

A circle with a dot in the centre makes the letter *tha*. No change in this period has occurred except that which was necessary with the 'new pen', i. e., varying thickness of the circle (XVIII. 21. i, ii). The letter *tha* on the seal of Hathipāla[1] is somewhat peculiar in shape, (XV. 21. i), having a large triangle head-mark. This may be due to the fondness of the designs for the triangular head-mark. The peculiar shape of the letter *ha* (XV. 38. ii) in this seal also may be attributed to the same cause.

From the view-point of the development of the letter *da*, this period represents a transitional one. The older form of *da* with an opening to the left continues at Bodh-Gayā (XXII. 22. i), Ayodhyā (XXI. 22. i), Bhārhut I (XX. 22. i) Sāñchī III (XVI. 22. i-iii), Hāthīgumphā (Pl. IV. A. 19. i-iii) and also in some Mathurā Kshatrapa inscriptions (XVII. 22. iv). The next stage of the development can be seen in the coin Series III (XV. 22. i, ii) and the Pabhosā inscriptions (XIX. 22. i, ii), where the lower vertical starts along with the lower portion of the curve and then takes a turn to the right. In the third stage of the development, the turning of the lower tip of the letter eliminates the middle curve opened to the left and opens a new curve to the right (XVII. 22. iii & v). The final development appears in the coins (XV. 22. iii & vi) and the pre-Kushāṇa (XVIII. 22. i-iii) inscriptions of Mathurā. The following figure will show these developmental stages at a glance.

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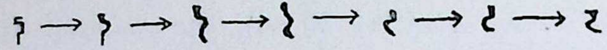
[1] *JNSI*, XXIV, pl. II, 12.



There is nothing new in the letter *dha* (Plate IV, line 23). The letter *na* also continues its older form, occasionally exhibiting the use of the 'new pen' (XV. 24. i; XVIII. 24. ii etc.). In some cases the horizontal line takes a curve (XVIII. 24. ii-iv; XIX. 24. ii, XXI. 24. i-ii & Pl. IVA. 21. iii). This curve becomes more and more prominent in later ages and gives way to newer forms.

Labials

Though the attempt to equalise the verticals of *pa* was started in the first century B. C., the Kshatrapas completed the process and gave it a beautiful appearance (XVII. 25. i-iv). Usually the left and optionally both the verticals were marked with triangular head-marks and the curve disappeared in favour of angles (Cf. Plate IV, line 25). In some cases, at Sāñchī III (XVI. 25. iii) Bhārhut II (XX. 25. ii), the curve continues and the left arm remains longer than the right one (see also XVI. 25. i; XX. 25. i & XXII. 25. i, ii; XXI. 25. i), though in the latter cases the curve is angularised. In Hāthigumphā the right vertical takes an inward turn to give an appearance of *pha* (Pl. IVA. 22. ii).

The letter *pha* was also influenced by the 'new pen' (XV. 26. i & XVII. 26. i) though at Ayodhyā it is still curved, with its left vertical longer (XXI. 26. i).

Ba retains its square form, with minor change due to the 'new pen' (Plate IV, line 27 and Plate IVA, line 23).

The right hand vertical of *bha* was already straightened in the first century B. C. In this period this occasionally becomes longer also. Its left hand hook is slightly broadened and beautifully tilted (XVII. 28. iii and XVIII. 28. iii). The use of the 'new pen' is marked in the varying thickness of the lines.

The letter *ma* of this period shows older forms as well as the most advanced forms met with only in the late first century A. D. At Sāñchī III (XVI. 29. i-iii) Bodh-Gayā (XXII. 29. ii) and Hāthigumphā (Pl. IVA. 25. i, ii.) the lower part of *ma* is a circle, whereas in the Mathurā-Kshatrapa (XVII. 29. i-iv) and pre-Kushāṇa (XVIII. 29. i-iii) inscriptions and also at Pabhosā (XIX. 29. i-ii), Bhārhut II (XX. 29. i), Ayodhyā (XXI. 29. i) and Hāthigumphā (Pl. IVA. 25. iii-iv), we find angular forms. We find a very advanced form of *ma* (XV. 29. ii),[1] on a coin of Amoghabhūti who has been assigned[2] to a date ranging from the first century B. C. to the third century A. D.

Semi-Vowels

We have observed in the earlier chapter that the wedge-shaped and crescented *ya* became rare and the double-curved *ya* was becoming popular. In the early first century A. D. crescented (XV. 30. i; XVI. 30. i, ii; XVII. 30. ii; XIX. 30. i & XXII. 30. ii) and double-curved *ya* (XIX. 30. ii; XXII. 30. i) are also met with. But the Kshatrapas of Mathurā developed a new form of *ya* in which the base of the letter was flattened (XVII. 30. i) This new type of *ya* developed out of the crescented (XVIII. 30. ii) as well as the double-curved (XIX. 30. ii, iii; XVIII. 30. iv) form, because we find both types of the broadened *ya*. The two together gave a new shape to this letter, produced by the 'new pen'. The middle vertical was also reduced and equalised to give good effect. All the three verticals of *ya* were given special attention. 'The left arm develops its line head-mark into a curl and finally into a loop, and the middle arm inclines to the left, while the right presses downwards to balance the loop in the left'.[1] The looped *ya* is to be found in the Kushāṇa and succeeding inscriptions. In this period the Ayodhyā *ya* (XXI. 30. i) presents the most advanced form.

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[1] *CCAI*, pl. XXIII, 1.

[2] Sircar, D. C., *AIU*, p. 161.

The letter *ra* is mostly a straight vertical, occasionally with its lower tip turned to the left. At the top it has the triangular head-mark (XV. 31. i, ii; XVII. 31. i, iv; XVIII. 31. i etc.), but sometimes this takes the shape of a small line (XVI. 31. ii; XIX. 31. iii). The serpentine *ra* is also seen (XX. 31. i; XXII. 31. i). In some cases the *ā* medial sign is written in the same stroke without lifting the pen (XVIII. 31. ii).

The curve of *la* is perfectly angularised in this period though curved forms also persist. Its right vertical is somewhat lengthened; it is usually straight but optionally inclined towards left (XVII. 32. ii) or right (XVI. 32. i). The hook of the left arm also received special attention in this period, and took various shapes (XVII. 32. i; XIX. 32. ii, iii; XVI. 32. ii).

We have already discussed the letter *ḷa* in the previous chapter[2] where we saw that it was developed out of *ṙa*[3] and not out of *ṭa* as conceived by Dani.[4] We have also pointed out that the main indication of its being derived from *ṙa* is the vertical of this letter. Here, in the Mathurā inscription,[5] this letter has a triangular head-mark (XVIII.33. i). This is a very fine specimen of this letter. Bühler, to whom the credit of reading this letter goes, has confused in reading it in Kushāṇa inscriptions where he invariably takes this letter to be a conjunct of double *ṭa*. We will discuss this in the next chapter.

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[1] Dani, *op. cit.*, pp. 87-88.

[2] Supra, pp. 75-76.

[3] Cf. Bühler, *IP*, p. 55.

[4] Dani, *IP*, p. 55.

[5] *EI*, I, pl. oppcsite p. 397. No. 33.

Sibilants and *Ha*

Though *va* with its rounded lower circle still continues in this period in some cases (XVI. 34. ii; XX. 34. ii, XXII. 34. i, Pl. IVA. 29. i, iii), the triangular *va* became the standard form. Its vertical, though continued optionally, is also reduced to the extent of a triangular head-mark. As pointed above, this triangular headmark became so popular, and the replacement of the vertical with something else was thought so necessary, that the triangle was formed deliberately (XVII. 34. iii-vi; XVIII. 34. ii-iv). This gave a new look to the letter, altogether different from the earlier one. However, this form was soon discontinued as it could not get popular sanction. It is noteworthy that such forms appear in the Mathurā fragmentary pillar inscription of Śoḍāsa also.[1]

The angular form of *śa* changed into a fine curved form, exactly in the same manner as in the case of *ga* (see Plate IV, line 35).

The letter *sha* continued its older form and we find no change except that its curve developed into fine angles (see Plate IV, line 36).

The verticals of *sa* are equalised in almost all cases, though at Bhārhut II (XX. 37. i-ii) and Bodh-Gayā (XXII. 37. i) the longer left vertical continues. In Hāthigumphā both forms are found side by side (Pl. IV A. 30). The main curve of *sa* is drawn in a single action and then a hook is added at the left. In the most advanced forms of this letter, the curve is angularised (XV. 37. i; XVII. 37. iv).

The curve of the letter *ha* is also angularised like *pa* and *sha* (see Plate IV, line 38).

Some Peculiar Formations :

We have already noted above some peculiar formations of the letters *ta* and *va* which were attributed to the fondness of the writers for the triangular head-mark. But in one Mathurā inscription of an unnamed *Mahārāja Rājātirāja* dated in the year 299 of an unknown era,[1] we find some abnormal forms of the letter *sa* and *ta*. Barring these exceptional forms, which are five in number, all other letters are normal and are attributable to the first century A. D. From Mathurā comes another inscription of a *Mahārāja*[2] dated in the year 270 of some unknown era. Lüders attributed this inscription to the same king *Mahārāja Rājātirāja,*[3] and assigned it to 'early Kushāṇa times'.[4] Its palaeography is quite normal.

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[1] *Mem. ASI*, No. 5, pl. XXVI. b.

The letter *ta* of *ārhatana* in line 1, read by Bühler as a compound letter *nta,*[5] has a triangular *va*—like formation appended to it (XVIII. 41. iv). Similarly there are four *sa* letters—*sarvasīdhana* in line 1, *savachchhare* in line 1, *sate* in line 1 and *sāvikā* in line 3, which also have such *va*—like appendages (XVIII. 41. v-vi). There are, however, two other *sas* in the second line in the words *māsa* and *divasa* which are quite normal. R. D. Banerji,[6] referring to J. Ph. Vogel who suggested that these may be abnormal forms of the letter, due to the caprice of the mason, observes that the *ta* of *ārhataha [ṁ]* must also similarly be regarded as abnormal.

COMPOUND AKSHARAS

In the period under reference, the following conjuncts are noticed in the inscriptions:

1. Groups with initial guttural:
   (a) *ksha* (XVII. 39. i; XVIII. 39. i)
   (b) *gra* (XVII. 39. ii)

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[1] *IA*, XXXVII, 34, pl. III, opposite p. 66.
[2] Lüders, *MI*, p. 162-63, pl. on p. 305.
[3] *Ibid*, p. 163.
[4] *Ibid*, p. 161.
[5] *IA*, XXXVII, 33.
[6] *Ibid*, p. 34.

2. Groups with initial palatal:
   - (a) *jña* (XV. 39. i-ii; XIX. 39. i; XXI. 39. i)
   - (b) *jva* (XVII. 39.iii)
   - (c) *chchha* (XVIII. 39. ii)

3. Group with initial lingual:
   - (a) *ṭṭā* (XVII. 39. v)

4. Groups with initial dental:
   - (a) *tra* and *tre* (XV. 39. iii and 40. i; XVI. 39. i; XVII 39. iv; XVIII. 39. iii; XIX. 39. iv; XXI. 39. ii; XXII. 39. i).
   - (b) (i) *ttra* and *ttra* (XIX. 39. i-iii).
     - (ii) *ttrā* (XIX. 39. ii).
   - (c) *tsa* (XVII. 39. vi).
   - (d) *dra* (XV. 40. ii; XVII. 39. vii; XVIII. 39. iv, v; XXII. 39. ii).
   - (e) *dvi* (XXI. 39. iii).
   - (f) *dhru* (XV. 40. iii).
   - (g) *nha* (Pl. IV. A. 32. i).

5. Groups with initial labial :
   - (a) *pta* (XV. 41. i).
   - (b) (i) *pra* (XVIII. 39. vi).
     - (ii) *prā* (XVIII. 40. i).
     - (iii) *pri* (XVII. 40. i).
     - (iv) *prī* (XVII. 40. ii).
   - (c) *brā* (XVII. 40. iii).

6. Groups with initial semi-vowel :
   - (a) (i) *rga* (XVIII. 40. ii).
     - (ii) *rcha* (XVII. 40. iv).
     - (iii) *rta* (XVII. 40. v).
     - (iv) *rdha* (XVII. 40. vi).
     - (v) *rma* (XXI. 40. i).

- (vi) *rya* (XVII. 40. vii).
- (vii) *rva* (XVIII. 40. iii).
- (viii) *rsha* (XVIII. 40. iv).

(b) *lgu* (XXI. 40. ii).

(c) *vri* (XVII. 40. i).

7. Groups with initial sibilants :

(a) *śchi* (XVII. 40. ii).

(b) *śva* (XV. 41. ii; XXI. 40. iii).

(c) *shka* (XVII. 41. iii).

(d) (i) *shthā* (XVII. 41. iv).
   (ii) *shthe* (XXII. 41. i).

(e) *shya* (XXI. 41. ii).

(f) *sta* (XVII. 41. v).

(g) (i) *stha* (XVII. 41. v; XVIII. 41. vi).
   (ii) *sthi* (XVIII. 41. v).

(h) *sva* and *svā* (XVII. 41. vii; 42. v).

(i) *sya* (XVII. 42. vi; XVIII. 41. i-iii; XIX. 41. i-ii; XXI. 41. iii).

(j) *hma* (XVII. 42. vii).

Some comments are required to explain a few of these combinations. We find the secondary *ra* sign in various forms. In some cases it is a straight line, as in Sāñchī III and Bodh-Gayā, while in other cases its lower tip is turned towards the left and rarely towards the right (XIX. 39. iv). For the secondary *ṛi*, a downward slanting stroke is added at the bottom of the letter *va* (XVII. 41. i). The initial *ra* sign is always a straight vertical line in a compound letter. The secondary *va* is always attached to the primary letter by its middle vertical.

Medial signs

The medial signs also developed side by side with the letters of this period. The horizontal dash of *ā* medial, though it continued in this period, becomes a slanting stroke, or sometimes is slightly curved (XVIII. 24. iii). Sometimes, as in the case of *rā* (XVIII. 31. ii), the medial is written along with the main letter in a single stroke. The *i* medial developed into a beautiful flourish, though its curved form is also seen. Its standard form generally inclines towards the left but in some ornamental forms it takes an outward turn (XV. 8. ii & 24. ii; XVIII. 29. iii etc.). The long *ī* medial is represented by two such flourishes which very often take a U or broadened V shape which are specially to be marked in the Hāthīgumphā keeping in view its socalled early date assigned by earlier scholars (Pl. IV A. 6. iii; 30. iii). The *u* medial is represented in many ways. In a letter like *ma* it is attached to the bottom, while in *pa, sa,* etc., it is added in the alignment of the right vertical; specially in *pa*, it is most interesting where its lower tip is turned to the left. In *ra* it appears as a horizontal dash. For long *ū*, an additional stroke is added (XVIII. 25. iv and XIX. 25. iv). These are sometimes written in one movement of the pen. The medial sign for *e* is a horizontal dash attached to the left of the letter. This form continues at Bhārhut II (XX. 22. i) and Ayodhyā etc. But its advanced form is an upwards shooting stroke slanting towards the left above the head-mark of the letter (XV. 22. iii). Two strokes to the right and left separately mark the medial *o*. Sometimes a single line extending to the left and right of the vertical of the letter serves the purpose, e.g. *gho* (XVII. 9. ii); *po* (XVI. 25. iii), *bho* (XVI. 28. ii), *bo* XXII. 27. i), etc. In advanced forms, the strokes become more slanting, and may emerge either from one point (XVIII. 20.v & XV. 9. ii-iii; XVII. 9. iii) or from two different points as in *bo* (XVII. 27. i). An additional third stroke to the *o* medial makes it *au* (XVIII. 35. iv). In *kau*, at Ayodhyā (XXI. 6. ii), it takes a beautiful form.

The *anusvāra* represented by a dot, takes various positions, above the letter (XVIII. 38. iv), to the right of the letter (XXII. 24. i) or to the upper right half of it (XXII. 2. i-ii; XX. 24. i) etc..

The *visarga*, shown in the form of two dots placed one upon the other, comes to the right of the letter (XXI. 20. ii; XXI. 24. ii).

Punctuation Marks

In the Mathurā inscription of the year 299, we find two small dashes placed one upon the other (XVIII. 42. vi). This sign occurs twice in the inscription, once in the second line after the numerals of the year and again in the fourth line after a word.[1] R. D. Banerji rightly regards it as a punctuation mark.[2]

Numerals

In these inscriptions, we meet signs for the following numerals :

1—(XVIII. 42. ia)
2—(XVIII. 42. ib & XVII. 42. i)
9—(XVII. 42. ii. & XVIII. 42. ii)
10—(XVIII. 42. iii)
70—(XVII. 42. iii)
90—(XVIII. 42. iv)
200—(XVIII. 42. v)

The sign for 1 and 2 are one and two parallel strokes respectively, while the sign for 9 in one case roughly resembles an interrogation mark (XVII. 42. ii), and in the other resembles the compound letter *dra*. R. D. Banerji observes[3] about the latter that it is similar to the other signs for the numeral 9, the only difference being that its lower tip turns to the right whereas in the normal forms it takes a left turn. The sign for 10 is a *ma* with its opening to the right. A symbol has been taken as the sign for the numeral 70. We will discuss this in detail in the next chapter, where we find some more signs for it. A circle with a cross inside it makes the sign for 90. An *ā* like formation represents the sign for 200.

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[1] *IA*, XXXVII, 34 & pl. facing p. 66.

[2] *Ibid*, p. 34.

[3] *Ibid.*

Conclusions

It will appear from the discussions above that the period of the first century A. D., which is marked by the introduction of a new writing tool, opens new horizons for the future development of the Brāhmī script. Combined with the natural instinct for ornamentation and the necessity of the flow in the writing, it gave way to various developments which took place in the coming centuries and shaped the Brāhmī script into many regional varieties. This marks a turning point in the history of Brāhmī script.

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1. Sircar, D. C., *Select Inscriptions,* Pl. XI.

VIII. Bodh-Gaya Railing Inscriptions :

1. Cunningham, A., *Mahabodhi,* Pl. X.

IX. Hathigumpha Inscription of Kharavela :

1. Sircar, D. C., *Select Inscriptions*, Book II, No. 91, p. 213 ff. and Pls. XXXVII-XXXVIII.

CHAPTER VI

THE PERIOD OF ACCELERATED DEVELOPMENT

(From A.D. 78 to A.D. 200)

By the time Kanishka appeared in Indian history, script was no longer a thing of the kings, their officers and their scribes. It was handled and popularised by a number of people. The truth of this statement can be realised from the fact that the number of offical records of this period is much less than that of the individual ones.[1] One of the obvious consequences of this was that more and more writers emerged to make their contributions to the Brāhmī script. The individual habits, likes and dislikes, and methods of forming every letter developed several varieties. By now the writing appears to have become a necessity for which swiftness was counted as an additional quality. Out of this emerged cursive forms. In northern India, where writing activities were more intense than in any other part of the country, the writers were more interested in the swift flow of the hand than in symmetry or ornamentation such as we see in the inscriptions of Nagarjunikonda[2] and Bijayagadh.[3] Places like Sāñchī, Mathurā, Kauśāmbī, Sārnāth, Śrāvasti etc. developed into important centres of writing activity, soon producing their own styles. During the period under review the Brāhmī script of northern India can be recognised to have become divided into two distinct schools of east and west. Mathurā became a centre for the western style while Kauśāmbī led the eastern regions. Even though the difference in these two schools was limited only to a few letters, the distinction is clear.

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[1] See bibliography at the end of the chapter.

[2] Cf. *SI*, Pl. XL.

[3] Cf. *CII*, III, Pl. XXXVI, Nos. B & C.

One notable feature of the inscriptions of this period in northern India is that most of them are dated. The inscriptions of Kanishka and his successors are reckoned in an era said to have been started in A. D. 78 by Kanishka.[1] The inscriptions of Kanishka are dated between the years 2–23, i.e. A.D. 79 to A.D. 101. He was succeeded by Vāsishka or Vashushka whose inscriptions discovered from Mathurā[2] and Sāñchī[3] are dated in the years 24 and 28, corresponding respectively to A. D. 102 and A. D. 106. He may be identified with *rājana* Vaskushāna of the Sāñchī inscription of the year 22,[4] who after the death of Kanishka appeared with full regal titles of *mahārāja rājātirāja devaputra shāha* Vāsishka in the Mathurā inscription of the year 24. He has also been identified with Vajheshka, the father of Kanishka II of the Ārā inscription of year 41[5]. It may not be true that he and his son Kanishka II ruled conjointly with Huvishka,[6] because we find the inscriptions of Huvishka starting from the year 28. It may be that he was ousted by Huvishka from the Mathurā and Sāñchī region about this year, i.e., A. D. 106, and established himself in the western part of the Kushāṇa empire where we find his son Kanishka II ruling in the year 41 i.e., A. D. 119. If this is acceptable, the Kushāṇa empire may be assumed to have been split up for a short period and Huvishka had to concentrate his attention mainly on the western part. This explains the absence of Kushāṇa records in the eastern region, which was probably left uncared for and may have slipped away from the hands of the Kushāṇas.[1] The Wardak Bronze Vase[2] inscription of Huvishka of the year 51, i.e., A. D. 129, presents no difficulty to our suggestions because ten years time would be sufficient to quell the rebellion. The rebellious nature of Vāsishka can be suggested from the Sāñchī inscription of year 22, where he assumes the title of king and does not mention Kanishka as his overlord as was done by others like Mahārāja Māsyaguta, a contemporary feudatory of Kanishka, in the Curzon Museum inscription of the year 23.[3] It may be noted here that in his old age Kanishka seems to have engaged himself in 'an unfortunate expedition in the north, probably against the Chinese in Central Asia'.[4] Kanishka's failure may have inspired Vaskushāna to usurp power and assume full regal titles.

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[1] *AIU*, pp. 43-44.

[2] Lüders, *MI*, pp. 125-29 & pl. on p. 295.

[3] Bühler, *EI*, II, 369, pl. facing p. 368.

[4] Marshall, *MS*, pl. XXXVIII, No. 53.

[5] Sircar, D. C., *AIU*, p. 150.

[6] *Ibid*, p. 150.

The inscriptions of Huvishka range between the years 28 and 60, i.e., A. D. 106 to A. D. 138.[5] The Kushāṇa inscriptions bearing the name of Vāsudeva range between the years 64 (or 74 ?) and 83, and, therefore, he can be assigned a reign up to A. D. 161, though other inscriptions of the Kushāṇa series date up to the year 98, i.e. A. D. 176.

Apart from the inscriptions of the Imperial Kushāṇas, we also find inscriptions of other kings dated in some unspecified era. The inscriptions of the Magha kings of Kauśāmbī and those of mahārāja Bhīmasena and the rulers of his line from the Bāndhogarh area are dated in the era believed to be the *Śaka-kāla* started by Kanishka in A. D. 78.[6] Another inscription, found from Kailvan (Bihar), also bears a date which according to Sircar[1] is in the Śaka era of A. D. 78. The palaeography of these inscriptions confirms the identification of the eras as Śaka, but it is not easy to agree with the suggestions of Sircar that the use of Śaka era indicates that Bihar formed a part of the Kushāṇa empire.[2] Dani rightly observes that 'the use of this era in no way implies the subordination of the rulers of Kauśāmbī to the Kushāṇas, but merely shows the continuation of a system of dating that was made popular by Kanishka in this region'.[3] The absence of Kushāṇa records in the eastern regions after Kanishka suggests that these parts soon overthrew their Kushāṇa rulers. The Kushāṇa method of mentioning the day and the season was never copied by these rulers.[4]

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[1] Chakravarti, N. P., *EI*, XXXI, 175.

[2] Sircar, D. C., *SI*, p. 153.

[3] *EI*, XXVIII, 43.

[4] Sircar, D. C., *op. cit.*, p. 142.

[5] *Ibid*, p. 155, fn. 1.

[6] Cf. also Krishna Deva, *EI*, XXIV, 155, for the era used by Magha rulers; and Chakravarti, N. P., *EI*, XXXI, 174-76 for the dates used by the Magha and Bandhogarh rulers.

For our study we have selected those dated inscriptions which may be placed before A. D. 200.

Dani rightly observes that it is not possible to speak of a uniform Kushāṇa style as applicable throughout their empire during their rule.[5] Some particular writing styles were developing in certain localities and the Kushāṇas preferred to employ local writers for their records. It is due to this reason that we find the eastern and western varieties of some letters in the Kushāṇa records. The Brāhmī script was thus given a chance to develop in two respects, that is to say, in time and space. With this consideration in mind we have classified the selected inscriptions according to regions and arranged them in convenient groups.

The inscriptions from Mathurā and its surroundings including those of Sāñchī region, form one class and are labelled as Western Style (Plate V). These are further classified into

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1. *EI*, XXXI, 230.
2. *Ibid*., p. 231.
3. *IP*, p. 90.
4. *EI*, XXXI, 176 also fn. 3.
5. *IP*, p. 78.

'Official' and 'Private' groups. The official group contains those inscriptions which bear names of the Kushāṇa kings while the private ones do not. We are aware of the difficulties of such a nomenclature, because all the inscriptions having the name of a Kushāṇa king are not official in the strict sense of the term, but this seemed to be a convenient name as opposed to the private. Some official records are very well written and exhibit the skilled hand of the royal scribes, while the private ones show a variety of hands - skilled and unskilled. These are further analysed and arranged into tables. The tables under the Western Style are arranged as follows :[1]

Table No.	XXIII	The Mathura inscriptions mentioning Kanishka, dated between the Śaka years 5 and 23. This includes the Mat statue inscription of Kanishka, which is undated.
Table No.	XXIV	The Mathura and Sāñchī inscriptions mentioning Vāsishka and Huvishka, dated between the Śaka years 24 and 60.
Table No.	XXV	The inscriptions mentioning Vasudeva, dated between the Śaka years 64 (74 ?) and 83.
Table No.	XXVI	Private inscriptions from Mathura dated between the Śaka years 4 and 22.
Table No.	XXVII	Private inscriptions from Mathura dated between the Śaka years 25 and 98.
Table No.	XXVIII	The Sāñchī inscription of Vaskushana dated in the Śaka year 22. This inscription deserves a separate palaeographical treatment because of its advanced nature and

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[1] A complete list of references of the inscriptions utilised can be seen at the end of the chapter. The numbering of the Tables continues from Plate I.

peculiar forms of some letters like *sa* and conjuncts *sku* and *sya* etc.

The inscriptions of the Eastern Style analysed and arranged on Plate VI are as follows :

Table No.	XXIX	The inscriptions mentioning Kanishka dated between the Śaka years 2 and 19 from Sārnāth, Kosam and Śrāvastī.
Table No.	XXX	The inscriptions of Kushāṇa times from the eastern region.
Table No.	XXXI	Two Mathura inscriptions of Kanishka, dated respectively in the years 4 and 14.
Table No.	XXXII	Mathura inscription of Huvishka, dated in the year 33.
Table No.	XXXIII	Inscriptions from the Kosam, Bāndhogarh and Bihar regions.

The last table, including the inscriptions of Bhīmasena and his successors from the Bāndhogarh area, dated 51 and onwards, shows the mixed style which is also influenced by the styles of Mathura and the south[1]. But as the majority of the letters resemble the style of the Kosam region, this group is included in the Eastern Style.

The inscription of the Kanishka year 14 is one of the most disputed records of the Kushāṇa history. Various scholars have reacted in various ways to its palaeography. We will quote here some of their views. D. R. Sahni observes :[2]

> 'The characters used belong to the Brāhmī alphabet of the Kushāṇa period. It must, however, be noted that the *m* everywhere shows the advanced form of the Gupta

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[1] Cf. also Dani, *IP*, p. 91.

[2] *EI*, XIX, 96.

> period with a small knob attached to the left of the letter instead of the triangular base. Similarly the *akshara* 'h' assumes the form peculiar to the eastern variety of the Gupta script in which the horizontal base-stroke is completely suppressed, the hook of the *akshara* being sharply turned to the left. The *anusvara* is throughout represented by a short horizontal stroke instead of the usual dot'.

N. G. Majumdar[1] holds that palaeographically it is impossible to refer this inscription to Kanishka I, that is to say to the early Kushāṇa period, as its alphabet shows predominantly 'Gupta' forms.

On account of the advanced form of some letters in this inscription, its date has been doubted,[2] and several synchronisms have been suggested leading to the existence of many Kanishkas and of 'the Kanishka legend.'[3]

Very recently, one more inscription from Mathura has come to light which is dated in the fourth year of mahārāja Kanishka, and bears, to quote D. C. Sircar, 'the so-called eastern Gupta variety of the letters *ma* and *ha*'.[4] Sircar assigns this inscription to Kanishka I and places it in A. D. 81—82.

The Mathura inscription of Huvishka of the year 33 also bears some advanced forms of the letters *ma* and *sa*.[5]

Our analysis on Plate VI (Tables XXXI, XXXII & XXXIII) will show that we need not go as far as the 'Gupta' characters to explain these peculiarities. As suggested by Dani,[1] these peculiarities 'can be explained' by placing them 'side by side with the inscriptions from the Kosam region'.

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[1] *EI*, XXIV, p 148. fn. 4.

[2] Please refer to the discussion on pp. 70-71 of B. N. Puri's *IUK*.

[3] Sircar, D. C., *AIU*, p. 146.

[4] *EI*, XXXIV, p 9.

[5] Cf. the Plate in the *EI*, VIII, facing p. 182.

If the authorship of Mathura inscription of the year 4 can be attributed to Kanishka I, and if the Mathura inscription of Huvishka of the year 33 may be assumed to refer to the same Huvishka whose inscriptions date between the years 28 and 60, without the necessity of postulating the existence of another Huvishka, why should a second or third Kanishka be imagined simply on the basis of the palaeographic peculiarities of some letters in the inscription of the year 14 ? We will discuss these peculiar letter formations while dealing with the letters individually, but we want to emphasize here that, on palaeographic grounds only, a third Kanishka need not be introduced and the reading[2] of the date in this inscription also should not be doubted. On epigraphic evidence, we can think only of two Kanishkas; Kanishka I as the founder of the Kushāṇa glory,and Kanishka II, the son of Vajheshka of the Ara inscription of the year 41.

Palaeographic Contribution of the Period :

The Brāhmī script of the first century A. D. exhibits a very rapid and varied growth, especially in north India. No doubt the introduction of a definite pen-style by the Mathura Śaka Kshatrapas was responsible for it to some extent, but the main credit of this development should go to the people who showed deeper interest in the art of writing. The large number of private records show the attempt of many people to reproduce the accepted forms in various ways. Several new apprentices must have entered the field and those who were skilled in the art diverted their attention to the increase of speed. This was responsible for the evolution of cursive forms. The more active centres of writing evolved more cursive forms than the less busy ones, resulting in many varieties. From this point of view, Mathura, the busiest centre of political and religious activities during the period, must have taken the lead in this field. The earliest specimens of the so-called 'eastern variety' of the letters *ma, ha* and *sa* are found in the inscriptions from Mathura. It is not likely that the two Mathura inscriptions of Kanishka, dated in the years 4 and 14, and the Mathura inscription of Huvishka dated in the year 33 were written by writers imported from Kausambi or any other place from the eastern region. On the other hand, the Sarnath, Sahet-Mahet and Kosam inscriptions of the time of Kanishka do not show the advanced forms of these letters, even though they are differentiated in respect of the head-mark. The only conclusion which can be inferred from this is that these forms were evolved by the skilled writers of Mathura. In what circumstances these forms came to Kausambi and developed into a regional style, during the reigns of the Magha rulers, is not clear. But once accepted in this area, these forms of the Brāhmī script developed with accelerated speed.

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[1] *IP*. p. 79.

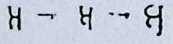
[2] Cf. Puri, B.N., *op. cit*., p. 71, who claims to have examined the estampage and the original inscription and found that both the symbols for 10 do not bear much difference. He is satisfied that the symbol is for the numeral 10. But, however, he feels it to be 'an era of omitted hundreds' and pleads the case for another Kanishka. Its reading as for the numeral 50 by V. V. Mirashi, *EI*, XXVI, 270 ff; and B. Ch. Chhabra, *ABORI*, XXXIII, 270 ff, cannot be accepted. Also cf. Sahni, *EI*, XIX,97 where he observes that 'the present inscription is clearly dated in the year 14 of that king'.

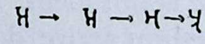
In the inscriptions of north India we observe that speed or swiftness was the main consideration, thus producing cursive forms, and ornamentation was only secondary. The change of the triangular head-mark into a line head-mark may be mainly due to this reason. The dot for *anusvāra* and some-times three dots of *i* also similarly changed into short lines. The flourishes of the medials were also simplified.

With these introductory remarks, we may take up individual letters and trace their development.

VOWELS

Among, the vowels, the form of *a* varies much. The vertical of the letter is generally bigger than the two strokes at the left. The lower tip of the vertical is sometimes inclined to the right or to the left. This feature, though found in a few cases (XXIV. l. i & XXVII. l. iii) only, deserves mention because in the later period it is much elaborated. In these inscriptions the left arm of *a* received much attention. Dani[1] distinguishes two main varieties of this letter, viz. curved and angular. He notes that 'in both the varieties, the upper left stroke becomes important, but while in the cursive variety this upper stroke slants downwards to meet the vertical and the lower stroke maintains its curved form, in the angular one, the upper stroke makes an angle before meeting the vertical and tries to assimilate the lower stroke, which sometimes appears below the line'. The best example of the cursive variety is met with in the Sarnath inscription of Aśvaghosha (XXX. l. i); the left strokes in the angular form develop in some cases into a single line attached to the vertical by a dash (XXXIII. l. iv). Many intermediary forms are also found (Plates V and VI, line l). The following figure will show the two lines of development :

Cursive forms : 

Angular forms : 

Though the use of three dots for *i* (XXX. 2. i-iii) continues in some places, we often find three short lines in place of these dots. Two short lines are placed one upon the other and the third one is a vertical short line to the right of these two (XXVII. 2. i-ii). In a private inscription from Mathura, we find one peculiar formation which has been read by Bühler[2] as *i*. This is formed of a vertical with two dots on either side (XXVII. 2. iii). Such forms occur in the southern caves of the mid-second century A.D. Again, we find this form in the Haraha inscription[1] of Īśānvarman, of the sixth century A. D. There it has been read as ī. It may be suggested that here also it denotes the same sound.

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[1] *Op. cit.*, p. 86.

[2] *EI*, II, p 204.

The initial *u* sometimes bends its base downwards, but in the medials this bend is very advanced (XXVII. 6. i and iii), and in some cases it is extremely curved (XXVII. 6. iv). Lohuize-De Leeuw takes these forms to belong to the post-Kushāṇa period.[2] But her conclusions are based on the assumption that in dating some Kushāṇa inscriptions the first digit is omitted,[3] a thesis which Dani rightly rejects on palaeographic grounds.[4]

The apex of the triangle of *e* is mostly to the left, which is more or less a standard form of this letter. The middle vertical of *o* is inclined.

CONSONANTS

SIMPLE AKSHARAS

Gutturals

The top head-mark of *ka*, though continuing the Kshatrapa triangular head-mark for some time, develops into a short line head-mark. In the eastern style the head-mark does not appear at all for a while, but in the Kosam-Bāndhogarh region it appears in the form of a line head-mark. This can be seen in *da*, *na*, *pa*, *bha* and *ra* also. In the western style this line head-mark is more prominent in the private inscriptions of Mathura. Though the middle horizontal of *ka* maintains its straight form in some examples, we find it variously curved in a majority of letters. In the Sāñchī inscription of Vaskushana (XXVIII. 39. i) the angle is more prominent.

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[1] Dani, *IP*, Plate Xa. line 6.

[2] *SP*, pp. 270, 271.

[3] Ibid, p. 263.

[4] Dani, *op. cit.*, p. 86.

The triangular base of *kha* now becomes more prominent and is almost standardised. In some cases, the upper hook of *kha* is less emphasised.

The round topped *ga* becomes the standard form of the period. Its left leg received much attention by appending to it a line foot-mark, which in some cases extends on both sides but in others only inwards (XXVII. 8. i; XXIX. 8. ii and XXIV. 8. i; XXXIII. 8. i-ii).

Gha is fully angularised in standard forms. Its vertical is generally straight, but in advanced forms the left vertical is slightly bent (XXXIII. 9. ii).

The letter *ṅa* never occurs alone; we find it only in conjunction with *ga* and *gha* (XXVI. 39. i and ii).

Palatals

The beaked type of *cha* is the most accepted form of this period and appears with many variations (Plates V & VI, line 10). The triangular and quadrangular- looped *cha* are also met with (XXVIII. 10. i; XXIII. 10. i-ii). Optionally the mouth of the loop of *cha* is open as in the Kosam inscription (XXXIII. 10. i).

As regard the letter *chha,* the double-looped variety seems to be most popular (Plate V and VI, line ll). The letter *ja* maintains its angular form with its vertical sometimes curved inwards. In some cases, the angular variety of *ja* is also found (XXVI. 12. i-ii and XXVII. 12. i). The lowest arm of *ja* occasionally bends downwards. *Jha* and *ña* continue their older forms; the latter is mostly to be seen in conjuncts (XXVIII. 39. ii; XXX. 39. ix & 40. i etc).

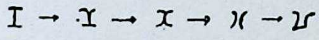
Linguals

The letters *ṭa* and *ṭha* maintain their previous forms, but whenever *ṭa* is joined with *i* or *u* medial, it shows a cursive hand.

The Kshatrapa type of *ḍa* continues (XXIII. 17. i) in some cases it develops a round back opened to the right (XXVI. 17. i).

In the advanced form of *ḍha* the base flattens and the curve develops into a loop (XXIII. 18. i; XXVI. 18. i). In the later variety the line head-mark is more marked.

The letter *ṇa* appears in many forms, which seem to be the outcome of the cursive hand. These show various stages of development, starting from the simple Aśokan type of *ṇa* having both the horizontal lines straight (XXIX. 19. ii) to the looped variety (XXVI. 19. i). In the inscriptions of Kosam-Bandhogarh region, the open-mouthed variety of *ṇa* is also found in conjuncts (XXXIII. 39. v-vi).

Forms of *ṇa* 

Dentals

The lower appendage of *ta* is rounded in almost all the forms. In some cases its vertical shortens and sometimes it is totally eliminated where the *o* madial starts immediately above the back of the curve (XXVII. 20. iii). Both triangular and linear head-marks are seen in this period. In the Kanishka inscriptions of the years 4 and 14 (Table XXXI), the linear head-mark is more prominent, but this can be seen in the private inscriptions from Mathura also.

The letter *tha* shows little change and the older form continues.

Da with its curve open to the left (XXX. 22. ii) becomes rare. The angular backed *da* with two curves are also found

(XXXI. 22. ii and XXXIII. 22. iii), but in its later development the lower appendage is dropped and the cursive form again revives a round back, but this time the curve opens to the right. This form becomes standard. In Kosam-Bandhogarh region both forms are optionally used.

Dha exhibits many forms with its curve at the left of the vertical angularised. Round-backed *dha* is also seen (XXV. 23. i; XXXII. 23. i), but the angular *dha* seems to be the most accepted form.

Na bends its base to various degrees. In some cases it goes to the extent of resembling the letter *ta* (XXXIII. 24. ii). Such forms are more frequent in the Kosam-Bandhogarh area.

Labials

Pa occurs only in its angular variety, with its left arm curved in some cases. In the majority of cases only the left arm receives the head-mark, and the medial signs for *ā, i, o* etc. are generally attached to this arm. Sometimes the base line is also slightly bent.

The letter *pha* also occurs only in the angular variety with a head-mark.

Ba retains its square shape, but in the Kosam region its left side is slightly bent (XXXIII. 27. i); in the later period this feature develops into a notched variety of *ba*.

Bha develops on two distinct lines. Dani[1] distinguishes two types of this letter. According to him in the first type 'the middle bar slants upwards and the right arm is elongated, both making an angle at the apex'. He calls this the angular type of *bha*. In the second type, 'the middle bar is elongated and finally notched, with two curved arms at either end'. This he calls a notched *bha*. The development of the two forms are traced as follows :

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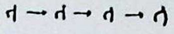
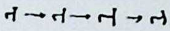
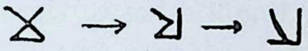
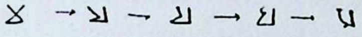
[1] *Op. cit.*, p. 87.

Angular type : 

Notched type : 

The most frequent type of *ma* of this period is formed of a triangular base with its arms making a St. Andrew's Cross. But the older type of *ma*, with circular or triangular-looped base and with curved arms, is also seen. This letter develops further with striking speed and completely changes its face. It plays upon its triangular base which 'first flattens out and then the triangle is placed on one side. In one case the base of the triangle merges with the longer arm, producing a tailed *ma*. In the other case the apex of the triangle opens and we get an open-mouthed *ma*.'[1]

A. 

B. 

The advanced forms of *ma* are seen in the Mathura inscriptions of Kanishka and Huvishka and in the inscriptions of Kosam-Bandhogarh area (see Plate VI, line 29), side by side with the older forms. It is not possible to trace any big gap between these forms.

Semi-Vowels

The letter *ya* flattens its base and appears in various forms. 'This base bends gracefully to give differential effect to the three uprights, which received special attention. The left arm develops its line head-mark into a curl and finally into a loop, and the middle arm inclines to the left, while the right presses downwards to balance the loop in the left'.[2] (See plates V and VI, line 30 for these forms). In subscript, this tripartite form changes itself into a bi-partite or hooked form. We will notice this while dealing with the conjuncts.

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1. Dani, *op. cit.*, p. 83.
2. Dani, *op. cit.*, pp. 87-88.

Ra is mostly a straight tapering vertical with a triangular or line head-mark. Occasionally its lower tip is bent. Very rarely we find a stepped variety of *ra* (XXX. 31. i), reminding us of a serpentine *ra,* which is optionally used in subscript or super-script (XXX. 39. i and 41. viii).

The right vertical of *la* is usually straight; sometimes it is gently curved towards the left. As we have noticed earlier, the left hook of *la* had taken an angular shape in the Kshatrapa period. Now it further develops and does away with the small tick, which now appears in the form of a hook pointing downwards (XXXI. 32. i; XXXIII. 32. i.). This most advanced type of *la* appears for the first time in the Kanishka inscription of the year 14 and again met with in the Magha inscriptions.

The letter *ḷa* (Plate V, line 33) has a significant history of its decipherment. Though it was first noticed by Bühler in the Kshatrapa inscriptions, already dealt with in the previous chapter, he could not give proper treatment to this letter in the Kushāṇa records. Wherever this letter appears, he deciphered it as a conjunct of double *ṭa*. Others also followed Bühler.[1] But whenever two *ṭa*s are conjoined, they are placed one upon the other and linked by a small vertical line (XXVI. 39. iii; XXVII. 42. i; XXXIII. 39. iv). Lüders, in his *Mathura Inscriptions*, reads this letter as *ḷa*.[2] As regards its origin, we are convinced that this letter is derived from the letter *ṛa*[3], and Dani's[4] derivation is not acceptable.

The triangular form of *va* became the standard form of this period, though the private inscriptions from Mathura show some other forms also (XXVII. 34. ii-iv, XXVI. 34. iii). The vertical of the letter shortens and in many cases disappears

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[1] E. g., Banerji, R.D., *EI*, X, 110, No. 3, line 2 etc.; Sahni, D.R., *EI*, XIX, 67, No. IV, line 3.

[2] P. 46 etc.

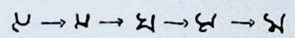
[3] Supra, p. 75.

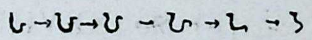
[4] *Op. cit.*, p. 55.

(Plates V & VI, line 34), but the triangular or the line head-mark persists. Emphasized triangular head-mark of Kshatrapa period does not appear as it could not become popular.

Sibilants & *Ha*

The curved form of *śa* is standardised and, like *ga*, it also develops a triangle or line foot-mark (XXVI. 35. ii; XXVII. 35. ii, iii & v).

The letter *sa* also takes a rapid course of change. First the upper curve of *sa* takes a definite angle (XXVI. 37. i) although it does not play an active part in the process of changes. The change takes place when the left hook of *sa* becomes a part of the left stroke and is attempted in a single action. This process produces first a small knob and then a loop. 

The letter *ha*, already angularised in the Kshatrapa period, also changes very rapidly. Its insignificant tick to the right first curves, then straightens the original curve of the letter and finally replaces it, changing the shape of the letter entirely (Plates V & VI, line 38). 

COMPOUND AKSHARAS

The important conjuncts are found in the following groups :

1. Groups with initial gutturals :

A. (a) *kka* (XXVIII. 39. i)
   (b) *kkha* (XXIII. 41. iii; XXXI. 39. i)
   (c) *kta* (XXX. 39. iii)
   (d) *kra* (XXX. 39. i)
   (e) *kṛi* (XXX. 39. ii)
   (f) (i) *ksha* (XXIV. 39. i; XXX. 39. iv)
      (ii) *kshi* (XXIII. 41. iv; XXX. 39. v)
      (iii) *kshu* (XXVII. 40. vii; XXXII. 39. i)
      (iv) *kshe* (XXXIII. 39. i).

B. (a) *gni* (XXX. 39. vi)
   (b) *gra* (XXIV. 39. ii)
   (c) *gṛi* (XXIII. 39. i; 41. v; XXIV. 41. i; XXVI. 40. v, 41. i; XXX. 39.vii; XXXII. 39. ii; XXXIII. 39. ii),

To show the subscript *ra*, the right leg of *ga* is slightly elongated and then turned to the left, while to denote a *ṛi* subscript, a slanting stroke is added to the right leg. Sometimes this stroke takes different shapes (XXVI. 41. i; XXXIII. 39. ii). These forms of the subscript *ra* or *ṛi* are followed in almost all letters.

C. (a) *ṅga* (XXVI. 39. i)
   (b) *ṅgha* (XXVI. 39. ii)

2. Groups with initial palatals :

A. *chchha* (XXVI. 39. iv)

B. *chhṛi* (XXX. 39. viii)

C. (i) *jñā* (XXX 39. ix)
   (ii) *jño* (XXVIII. 39. ii; XXX. 40. i)

D. *ñcha* (XXX. 40. ii; XXXIII. 39. iii)

3. Groups with initial lingual :

A. (i) *ṭṭā* (XXXIII. 39. iv)
   (ii) *ṭṭi* (XXVII. 42. i)
   (iii) *ṭṭo* (XXVI. 39. iv)

B. (i) *ṇḍa* (XXV. 39. ii; XXIX. 39. iii; XXXI. 39. ii)
   (ii) *ṇḍha* (XXXIII. 39. v)
   (iii) *ṇya* (XXXIII. 39. vi)

The open mouth *ṇa* in the last two examples deserve special notice.

4. Groups with initial dental :

A. (a) *tkṛi* (XXX. 40. iv)
   (b) *tvo* (XXIV. 39. iii)

(c) (i) *tra*(XXIII. 39. iii; XXV. 39. i; XXVII. 42. ii; XXX. 40. iii; XXXI. 38. iii; XXXII. 39, iii)
  (ii) *tri* (XXVI. 39. v)
  (iii) *tre* (XXIX. 39. ii; XXXII. 40. i; XXXIII. 40. i)
  (iv) *tro* (XXIII. 39. ii; XXV. 40. iii)
  (v) *tṛi* (XXVII. 42. v)

It is not difficult to distinguish between the subscript *ra* and *ṛi*. *Ta* with hollow head-mark is noticeable in Huvishka's inscription (XXXII. 39. iii).

(d) *tsa* (XXXI. 39. iv; XXXIII. 40. ii and iii).
Ta is combined with a developed form of *sa* as well as older *sa*.

B. (a) *dga* (XXXIII. 40, iv)
(b) (i) *ddha* XXIV. 39. iv; XXIX. 40, i; XXXI. 40. i; XXXII. 40. ii)
  (ii) *ddhi* (XXXIII. 40. v)
  (iii) *ddhya* (XXIX. 40. ii; XXXI. 40. ii)
(e) *dbhiḥ* (XXX. 40. v)
(d) *dya* (XXVIII. 40. i; XXX. 40. vi)
(e) (i) *dra* (XXVI. 40. ii)
  (ii) *dri* (XXVI. 40. iii)
(f) (i) *dva* (XXVII. 39. ii)
  (ii) *dvi* (XXV. 40. i)
  (iii) *dve* (XXVII. 39. i)

Da with its curve open to the left is noteworthy in this period (XXX. 40. vi). The subscript *ya* appears both in its tripartite and bi-partite forms. The course of their development is traced while dealing with the conjuncts with initial *sa*.

C. (a) *nte* (XXXII. 40. iii)
  (b) *ndi* (XXVII. 39. iii-iv)
  (c) *ndra* (XXVII. 41. vii)
  (d) *nnri* (XXIV. 39. v)
  (e) *nyū* (XXX. 40. vii)

5. Groups with initial labial :

A. (a) *pña* (XXVII. 39. v) a wrong combination;
  (b) *pta* (XXX. 40. viii)
  (c) (i) *pra* (XXV. 39. iii; XXVIII. 40. ii; XXX. 40. ix; XXXI. 40. iii).
    (ii) *prī* (XXIV. 39. vi; XXX. 40. i)
    (iii) *pro* (XXIV. 39. vii)
    (iv) *pṛi* (XXVI. 40. iv)

B. *bra* (XXVI. 42. i)

C. (a) *bhrā* (XXVII. 41. v; XXXIII. 41. i).
  (b) *bhṛī* (XXX. 41. ii)

D. (i) *mba* (XXVII. 40. v)
  (ii) *mbu* (XXIV. 40. i)

6. Groups with initial semi-vowels :

A. (i) *yya* (XXVII. 40. i)
  (ii) *yyo* (XXVII. 39. vi)

B. (a) *rṇṇa* (XXVII. 42. iii)
  (b) *rtiḥ* (XXX. 41. iii)
  (c) *rttha* (XXIX. 40. iii; XXXI. 40. iv XXX. 41. iv with *visarga*).
  (d) (i) *rtha* (XXIV. 40. iv; XXV. 40. iv; XXX. 41. v).
    (ii) *rthi* (XXX. 41. vi).
  (e) *rddha* (XXVI. 42. ii; XXX. 41. vii)
  (f) (i) *rma* (XXX. 41. ix)
    (ii) *rmma* (XXXIII. 41. ii)

(g) *ryya* (XXIII. 39. iv; XXVI. 40. i; XXVII. 39. vii; XXI. 41. i; XXXIII. 41. iii).

(h) (i) *rva* (XXIV. 40. iii; XXX. 41. viii)

(ii) *rvva* (XXIII. 39. v; XXV. 40. ii; XXVII. 40. ii-iii; XXVIII. 41. i; XXXI. 41. ii-iii).

(i) *rsha* (XXV. 39. iv; XXX. 42. i; XXXIII. iv)

C. (a) *lla* (XXIX. 41. i; XXXIII. 41. v)

D. (a) *vṛi* (XXIV. 40. ii; XXVII. 40. iv; XXX. 42. ii)

7. Groups with initial sibilants :

A. (a) *ścha* (XXIX. 41. ii)

(b) *śya* (XXXVI. 41. ii; XX. 42. v)

(c) (i) *śra* (XXVII. 41. vi)

(ii) śrā (XXVI. 41. iii)

(iii) *śri* (XXXIII. 42. i)

(iv) śrī (XXIV. 40. v; XXX. 42. vi; XXXIII. 41. vi)

(d) *śva* (XXX. 42. iii-iv)

B. (a) (i) *shka*, (XXIV. 40. vi; XXIX. 42. i; XXXI. 41. iv; XXXII. 41. i)

(ii) *shko* (XXIII. 40. iii)

(b) (i) *shṭā* (XXIV. 40. vii; XXVIII. 41. ii)

(ii) *shṭo* (XXX. 42. vii)

(c) (i) *shṭha* (XXIII. 50. ii)

(ii) *shṭhā* (XXIX. 41. iii; XXXI. 42. i)

(d) *shma* (XXXIII. 42. ii), curved type of *sha* is to be marked here.

(e) *shyo* (XXIII. 40. i)

C. (a) *sku* (XXVIII. 42. i)

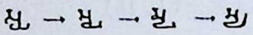
(b) *scha* (XXVI. 41. iv)

(c) *stu* (XXVII. 42. iv)

(d) *smiṁ* (XXXI. 42. ii)

(e) *sya* (XXIII. 40. iv-v; 41. i, 42. i; XXIV. 41. i-iii; XXV. 41. ii-iii; XXVI. 41. v; XXVII. 41. i-iv; XXVIII. 42. ii; XXIX. 42. ii; XXX. 42. ix; XXXI. 42. iii-iv; XXXII. 41. ii-iii; 42. i-ii; XXXIII. 42. iii-iv).

The formation of *sa* in *sku* (XXVIII. 42. i) and *sya* (XXVIII. 42. ii) where the left hook turns upwards is a peculiar one. Different stages of the development of subscript *yā* from the tripartite form into a bi-partite form can be noticed in these conjuncts. Below, we give the main stages in summarised form.



Medial Signs

The system of medial signs used in the pre-Kushāṇa inscriptions (Plate IV, Table No. XVIII), discussed in the preceeding chapter,[1] was much elaborated in this period. However, there was no fundamental change.

The dot denoting *anusvāra* was occasionally replaced by a short dash and was generally put above the letter. However, a dot for the *anusvāra* also continued.

The visarga continues its older form.

Punctuation Marks

In private inscriptions of Mathura, a vertical line is sometimes found and can be taken as an inter-punctuation mark.

Numerals

The earliest use of numerals is found in the inscriptions of Aśoka,[2] where only 4, 6, 50 and 200 are used. But in the period of the Mathura Kshatrapas and Kushāṇas we find an extensive use of numerals.

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[1] *Supra*, p. 104 ff.

[2] Upasak, *HPMB.*, p. 122 ff.

Pt. Bhagwanlal Indraji[1] and Bühler[2] are convinced that these numerals are based on the *aksharas* or syllables of the Brāhmī script. A superficial observation of these signs leaves no doubt about the correctness of the views of these scholars. But when individual signs are carefully studied, one feels that, though particular letters or conjuncts were originally used as symbols for definite numbers, no pains were taken to stick to the original forms and these numerals developed independently.[3] In some cases, it is almost impossible to trace the original shape; for example, compare some forms of 8, 10, 50 etc. on Plates V and VI. Again, it may also be pointed out, even if it goes against the *Akshara* theory,[4] that though the letter *tha*[5] is said to denote the number 20,[6] another form of this letter, avertical line inside the circle, denotes the number 80; and a combination of the middle lines of 20 and 80, i. e., a plus mark inside the circle, makes it 90. This means that these signs do not point to any letter or conjunct but stand by themselves. Secondly, in the Aśokan inscriptions, there are at least three different signs for 200[7] and not all of them can be equated with the Brāhmī letter *su* or *shu*. In our opinion the origin of these numerals may possibly be traced in one or the other letter, but no connection between the letter and the

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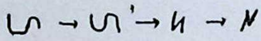
1. *IA*, VI. 43.
2. *Ibid*. p. 47.
3. Cf. Indraji who holds that 'the variations which occur in their forms in the inscriptions of different dynasties and centuries are caused chiefly by the variations of the forms of the letters in the alphabets of the same times and dynasties'. *IA*, VI. 43.
4. Our study of numerals is limited only to the five centuries covered in this work and hence these observations have their own limitations and are true only with reference to this period.
5. It may be pointed out here that a horizontal dash in the circle is nearer to the usual form of the Greek letter *theta* than the Brāhmī *tha* where only a dot is put in the circle.
6. *IA*, VI. 47.
7. Upasak, C. S., *op. cit.* p. 123.

denomination that it represents can be established; these letters were simply utilised as convenient symbols and evolved very rapidly.

The numerals 1, 2 and 3 are expressed by horizontal strokes; numbers 4-9 & 10-90 & 100 have separate signs for each. To express 200 a short stroke is added to the right side of the sign for 100.[1]

The sign for 4 resembles the Brāhmi letter *kī* (XXVI. 43. 11); but in the majority of the symbols, the so-called long *ī* medial finds its place to the left of the vertical. Numeral 5 resembles the Brāhmī letter *ña* of this period. In the Gupta period the hook at the right changes its place and comes to the left; Indraji takes this for the conjunct *tri*.[2] The symbol for 6 resembles the cursive form of Brāhmī *ja*. It changes its shape very frequently and, in the Bandhogarh inscriptions, appears in a peculiar form (XXXIII. 44. i-ii). The sign for 7 resembles *ga* with its right leg lengthened, which Indraji takes for *gra*. The numeral 8 resembles Brāhmī *ha* with its right hook lengthened. A very cursive form of this numeral is found in the Kailvan inscription[3] (XXXIII. 44. iii). Possible stages of such a transformation are restored here.



We are not sure about the letter that served as the model for the symbol for 9. Indraji[4] takes it for the letter *o*, which is not likely in this period. However, we find many variations of it (XXIV. 44. i a and b; XXVI. 44; XXVII. 43. v; XXIX. 43. ii-iii; XXX. 43. ix).

The sign for 10 in many inscriptions resembles clearly the Brāhmī letter *ma* with its open side to the right (XVIII. 42. iii; XXIV. 43. ii b; XXV. 43. iv; XXVI. 44. iii-iv; XXVII. 43. vi;

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1. Bühler, *IA*, VI. 155; and *IP*., p. 97.
2. *IA*. VI. p. 46, cf. also his chart on p. 44, column IV, line 5.
3. *EI*. XXXI. 230.
4. *Op. cit.*, p. 46.

XXVIII. 43. ii; XXIX. 44. i). From other cases, it appears that various formations developed out of this sign (XXIII. 44. i-ii; XXIV. ii a; XXVII. 43. vii; XXIX. 44. ii; XXXI. 43. iii-iv; XXXIII. 43. iv). It is not possible to agree with Indraji[1] that this numeral resembles *ḷa*, because in *ḷa* we always have a head-mark, which is lacking here. (Cf. Plate V line 33 also).

As indicated above, the numbers 20, 80 and 90 are formed by a circle with a horizontal, a vertical line and a cross inside it respectively. Many varieties emerge out of this form; e. g. , see XXV. 44. iii; XXVII. 44. vii for 80 and XXVI. 44. v; XXVII. ia & b; XXVIII. 44. i for the numaral 20.

The sign for 30 resembles Brāhmī *la* but its right vertical is some times equal to the left one (XXIV. 44. iv a & b; and also XXXII. 48. iii).

There has been much confusion regarding the reading for the numerals 40, 60 and 70. The sign for 40 resembles the compound letter *pta* of Brāhmī, which Bühler sometimes reads as 70.[2] And the sign for 60 resembles Roman capital letter V which again has been mistaken by Bühler for 40.[3] The sign for 70 resembles a St. Andrew's cross.[4]

The numeral for 50 may be taken to resemble the *jihvā-mūlīya*, but put in a different position (XXIV. 43. vi; XXVII. 43. iv a and b).

The sign for 100 may be taken to resemble *su* (XXXIII. 44. v) in one case and *to* (XXXIII. 44. iv) or, slightly, *śu*[5] in the other case. The sign for 200 (XVIII. 42. v) is like the former, with an additional tick to the right denoting that its potency has been raised to 200.[6]

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[1] *Op. cit.*, pp. 46-47.

[2] *EI*, II, p. 204. No. 20.

[3] *EI*, I, p. 368. No. 8.

[4] See Lüders, *EI*, IX. p. 243 ff. for discussion on numerals.

[5] Bühler, *IA*. VI. p. 48.

[6] *Ibid.*, p. 155.

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2. Sāñchī Inscription of Vasushka : year 28, *EI*, Vol. II, p. 369, pl. facing p. 318.
3. Mathura Inscription of Huvishka : year 28, Sircar, D. C., *SI*, pp. 151-52, pl. XXVIII.
4. Mathura Inscription of Huvishka : year 29, *EI*, Vol. I, p. 385, no. 6.
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10. Mathura Inscription of Huvishka : year 58, *EI*, Vol. X, p. 114, no. 7.

11. Mathura Inscription of Huvishka : year 60 *EI*, Vol. I, p. 386, no. 8.
12. Mathura Inscription of Huvishka, *EI*, Vol. II, p. 206, no. 25.
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2. Inscription of year 5, *IA*, Vol. XXXIII, p. 33, no. 2, pl. in *EI*, Vol. II, p. 201, no. 12.
3. Inscription of year 9, *EI*, Vol. X, p. 110, no. 3.
4. Inscription of year 12, *EI*, Vol. X, p. 111, no. 4.
5. Inscription of year 15, *EI*, Vol. I, p. 383, no. 2.
6. Inscription of year 18, *EI*, Vol. II, p. 202, no. 13.
7. Inscription of year 18, *EI*, Vol. II, p. 202, no. 14.
8. Inscription of year 19, *EI*, Vol. I, pp. 382-83, no. 3.
9. Inscription of year 20, *EI*, Vol. I, p. 395, no. 29.
10. Inscription of year 20, *EI*, Vol. I, p. 395, no. 28.
11. Inscription of year 20, *EI*, Vol. I, p. 383, no. 4.
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3. Inscription of year 28, *IA*, Vol. VI, p. 217, no. 1.
4. Inscription of year 31, *EI*, Vol. II, p. 202. no. 15.
5. Inscription of year 32, *EI*, Vol. II, p. 203, no. 16.
6. Inscription of year 35, *EI*, Vol. I, p. 385, no. 7.
7. Inscription of year 45, *EI*, Vol. I, p. 387, no. 10.

8. Inscription of year 47, *EI*, Vol. I, p. 396, no. 30.
9. Inscription of year 49, *EI*, Vol. II, p. 204, no. 20.
10. Inscription of year 50, *EI*, Vol. II, p. 203, no. 17.
11. Inscription of year 50, *EI*, Vol. II, p. 209, no. 36.
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18. Inscription of year 87, *EI*, Vol. I, p. 388, no. 13.
19. Inscription of year 90, *EI*, Vol. II, p. 205, no. 22.
20. Inscription of year 92, *EI*, Vol. XXXIV. p. 11.
21. Inscription of year 93, *EI*, Vol. II, p. 205, no. 23.
22. Inscription of year 95, *EI*, Vol. I, p. 392, no. 22.
23. Inscription of year 98, *EI*, Vol. II, p. 205, no. 24.

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2. Sarnath Inscription of Aśvaghosha : year 40, *EI*, Vol. XXIV, p. 172.
3. Prahaldpur Pillar Inscription, Fleet, J. F., *CII*, Vol. III, p. 250, pl. XXXVI A.

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1. Inscription of Kanishka : year 4, *EI*, Vol. XXXIV, p. 10.
2. Inscription of Kanishka : year 14, *EI*, Vol. XIX, p. 97.

X. Mathura Inscription of Huvishka : year 33 : Eastern Style :

1. *EI*, Vol. VIII, p. 182.

XI. Inscriptions from Kosam and Bandhogarh Regions : years 52-108 : Eastern Style :

1. Ginja Inscription of Bhimasena : year 52, *EI*, Vol. III, pl. opposite p. 306.
2. Kosam Inscription of Bhadramagha : year 81, *EI*, Vol. XXIV, p. 256.
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Explanation Tables

HOW TO CONSULT TABLES

Every table of explanation has six columns. The first one contains the serial number of the letters illustrated in the table. The second column bears numbers which are indicative of the horizontal lines in the plates. The column three has number in small Roman indicating the vertical subcolumn of the table on the given plate. In the next column the transliteration of the illustrated letter is given while in the fifth one that word is given in which that particular letter occurs. The sixth column gives reference. In the beginning of every explanation references are quoted, and every reference is given a separate code in the form of alphabet or number. In this column small l. denotes the line of the inscription in reference.

Explanation of Table I. Plate I

Nāgārjunī Cave Inscriptions

Ref : *Mem. ASI,* No. 1. Pl. 1.

Key : I. *Vahiyaka Cave Inscription*
II. *Gopikā Cave Inscription*
III. *Vaḍathikā Cave Inscription*

1	1	i	a	Abhisiten	I.	Line 2
2	1	ii	ā	Āchaṁda	III.	1.4
3	4	i	ka	Vahiyaka	I.	1.1
4	4	ii	ku	Kubhā	I.	1.1
5	6	i	go	Gopikā	II.	1.1
6	8	i	chaṁ	Āchaṁdama	I.	1.4
7	10	i	ji	Ajivikehi	II.	1.2
8	10	ii	jī	Jīvikehi	III.	1.3
9	11	i	ṭhe	Nisiṭhe	I.	1.3
10	12	i	ḍa	Vaḍathikā	III;	1.1
11	13	i	te	Bhadaṁtehi	II.	1.3
12	13	ii	te	Abhisitena	III.	1.2
13	14	i	the	Dasalathena	I.	1.1
14	14	ii	thi	Vaḍathikā	III.	1.1
15	15	i	de	Devānaṁ	II.	1.1
16	15	ii	de	Devānaṁ	I.	1.1
17	15	iii	de	Devānaṁ	III.	1.1
18	15	iv	di	Diyāye	III.	1.3
19	17	i	na	Dasalathena	I.	1.1
20	18	i	pi	Pi	II.	last letter of 1.1
21	20	i	bha	Bhadaṁtehi	I.	1.3
22	20	ii	bhā	Kubhā	III.	1.1
23	20	iii	bhi	Abhisitena	II.	1.2
24	21	i	ma	Āchaṁdama	III.	1.4
25	22	i	ya	Vahiyaka	I.	1.1
26	22	ii	yā	Nisidiyāya	I.	1.3
27	24	i	li	Sūliyaṁ	I.	1.4
28	25	i	vā	Vāsa	I.	1.3
29	25	ii	vi	Jīvikehi	III.	1.3
30	27	i	si	Abhisitena	I.	1.2
31	27	ii	sū	Sūliyaṁ	III.	1.4
32	28	i	hi	Vahiyaka	I.	1.1

Explanation of Table II. Plate I

Mahāsthān Inscription

Ref : *Sircar, D. C., SI, Pl. VIII facing p. 82*

Key : 1, *Photoprint*
2. *Rubbing*

1	1	i	a	Atiyāyika	1.	line 6
2	3	i	e	Etaṁ	1.	1.1
3	3	ii	e	Esa	1.	1.6

4	4	i	ka	Atiyāyika	1.	1.5
5	4	ii	ke	Kehi	2.	1.6
6	4	iii	ko	Kosaṁ	1.	1.6
7	5	i	kha	Sulakhite	1.	1.2
8	6	i	ga	Nagalate	2.	1.2
9	6	ii	gi	Saṁvagiyānaṁ	2.	1.3
10	6	iii	gi	Sa[ṁ]vagiy[ā]naṁ	1.	1.1
11	6	iv	gaṁ	Gaṁḍa	1.	1.5
12	11	i	ṭhā	Koṭhāgāle	1.	1.6
13	12	i	ḍa	Puḍanagalate	1.	1.2
14	12	ii	ḍa	Gaṁḍa	1.	1.5
15	13	i	ti	Vahipayisati	1.	1.3
16	13	ii	ti	Dagatiyā	1.	1.4
17	13	iii	te	Sulakhite	1.	1.2
18	13	iv	te	Nagalate	1.	1.2
19	15	i	da	Dagatiyā	1.	1.4
20	15	ii	di	Sapadina	1.	1.1
21	16	i	dhā	Dhāniya	1.	1.4 (restored)
22	17	i	ni	Dhāniya	1.	1.4
23	17	ii	naṁ	Saṁvagiyānaṁ	1.	1.3
24	18	i	pa	Vahipayisati	1.	1.3
25	18	ii	pi	Pi	1.	1.5
26	18	iii	pu	Puḍanagalate	1.	1.2
27	21	i	mā	Māte	1.	1.2 (restored)
28	22	i	ya	Sa[ṁ]vagiy[ā]naṁ	1.	1.1
29	22	ii	yā	Dagatiyā	1.	1.4
30	22	iii	yi	Vahipayisati	1.	1.3
31	24	i	la	Sulakhite	1.	1.2
32	24	ii	la	Puḍanagalate	1.	1.2
33	24	iii	le	Koṭhāgāle	1.	1.6
34	25	i	va	Vahipayisati	1.	1.3
35	25	ii	va	Saṁvagiyānaṁ	1.	1.3
36	27	i	sa	Sa[ṁ]vagiy[ā]naṁ	1.	1.1
37	27	ii	sa	Esa	1.	1.6
38	27	iii	si	Kasi	1.	1.5
39	27	iv	su	Sulakhite	1.	1.2
40	27	v	su	Suatiyāyika	1.	1.5
41	27	vi	saṁ	Saṁvagiyānaṁ	1.	1.3
42	28	i	hi	Vahipayisati	1.	1.3

Explanation of Table III. Plate I

Sohgaurā Bronze Plaque Inscription

Ref : *JASL. XVII. 1952. plate I*

1	1	i	a	Atiyāyika	line 4
2	3	i	e	Ete	1.2
3	4	i	ka	Ka	last letter of 1.1
4	4	ii	ka	Bhalakana	1.3
5	4	iii	ko	Koṭhagalāni	1.2
6	6	i	ga	Koṭhagalāni	1.2
7	7	i	gha	Tighavani	1.3
8	8	i	chaṁ	Chaṁchu	1.3
9	8	ii	chu	Chaṁchu	1.3

10	9	i	chha	Chha	last letter of 1.3
11	11	i	ṭha	Koṭhagalāni	1.2
12	13	i	ti	Savatiyana	1.1
13	13	ii	ti	Manavasiti	1.1
14	13	iii	te	Silimāte	1.2
15	14	i	thu	Mathula	1.3
16	15	i	da	Dave	1.2
17	15	ii	da	Modāma	1.3
18	15	iii	da	—	last letter of 1.2
19	17	i	na	Manavasiti	1.1
20	17	ii	ni	Koṭhagalāni	1.2
21	17	iii	ni	Tighavani	1.3
22	17	iv	no	Nogahitavaya	1.4
23	20	i	bha	Bhalakana	1.3
24	21	i	ma	Mahamagana	1.1
25	21	ii	ma	Mathula	1.3
26	21	iii	me	Game	1.2
27	21	iv	mo	Modāma	1.3
28	22	i	ya	Kayiyati	1.4
29	22	ii	yā	Atiyāyika	1.4
30	22	iii	yi	Atiyāyika	1.4
31	24	i	la	Mathula	1.3
32	24	ii	lā	Koṭhagalāni	1.2
33	24	iii	li	Silimāte	1.2
34	25	i	va	Manavasiti	1.1
35	25	ii	va	Savatiyana	1.1
36	25	iii	ve	Dave	1.2
37	27	i	sa	Savatiyana	1.1
38	27	ii	sa	Sasane	1.1
39	27	iii	si	Manavasiti	1.1
40	28	i	ha	Mahamagana	1.1
41	28	ii	hi	Gahitavaya	1.4
42	29	i	—	Symbol above the inscription.	
43	29	ii	—	,, ,, ,,	

Explanation of Table IV. Plate I

Piprāhvā Vase Inscription

Ref : *Sircar, D. C., SI, Pl. IX*

1	2	i	i	Iyaṁ
2	4	i	ka	Sabhaginikana
3	4	ii	ki	Sakiyāna
4	4	iii	ki	Sukiti
5	6	i	ga	Bhagavate
6	6	ii	gi	Subhaginikana
7	13	i	ta	Saputa
8	13	ii	ti	Sukiti
9	13	iii	te	Bhagavate
10	15	i	da	Dalana
11	16	i	dha	'Nidhane
12	16	ii	dha	Budhasa
13	17	i	na	Sabhaginikana
14	17	ii	na	Sakiyāna

15	17	iii	ni	Nidhane
16	17	iv	ni	Sabhaginikana
17	17	v	ne	Nidhane
18	17	vi	naṁ	Bhatinaṁ
19	18	i	pu	Saputa
20	19	i	bu	Budhasa
21	20	i	bha	Bhagavate
22	20	ii	bha	Bhatinaṁ
23	20	iii	bha	Sabhaginikana
24	22	i	ya	Iyaṁ
25	22	ii	ya	Sakiyana
26	24	i	la	Salila
27	24	ii	la	Dalana
28	24	iii	li	Salila
29	25	i	va	Bhagavate
30	27	i	sa	Salila
31	27	ii	sa	Budhasa
32	27	iii	sa	Sabhaginikana
33	27	iv	sa	Saputa
34	27	v	su	Sukiti

Explanation of Table V. Plate I

Rāmgarh Hill Cave Inscriptions

Ref: *ASI AR, 1903-04, Pl. XLIII.* *S=Sītābeṅgā inscription*
J=Jogīmārā inscription

1	1	i	a	Adipayaṁti	S, ibid. 1.1
2	1	ii	a	Alaṁga	S, ibid. 1.1
3	3	i	e	Evaṁ	S, ibid. 1.2
4	4	i	ka	Kavayo	S, ibid. 1.1
5	4	ii	ka	Śutanuka	J, ibid. 1.3
6	4	iii	ku	Kudasphataṁ	S, ibid. 1.2
7	5	i	khe	Lupadakhe	J, ibid. 1.5
8	6	i	ga	Garu	S, ibid. 1.1
9	13	i	ta	Śutanuka	J, ibid. 1.3
10	13	ii	ta	Rātayaṁ	S, ibid. 1.1
11	13	iii	ti	Vasaṁtiyā	S, ibid. 1.2
12	13	iv	ti	Adipayaṁti	S, ibid. 1.1
13	13	v	te	Hāsāvānūbhūte	S, ibid. 1.2
14	13	vi	taṁ	Taṁ	J, ibid. 1.4
15	14	i	tha	Kamayitha	J, ibid. 1.4
16	15	i	da	Hadayaṁ	S, ibid. 1.1
17	15	ii	di	Adipayaṁti	S, ibid. 1.1
18	15	iii	di	Devadine	J, ibid. 1.5
19	15	iv	du	Dule	S, ibid. 1.2
20	15	v	de	Devadina	J, ibid. 1.5
21	17	i	na	Nama	J, ibid. 1.3
22	17	ii	nu	Śutanuka	J, ibid. 1.3
23	17	iii	nū	Hāsāvānūbhūte	S, ibid. 1.2
24	18	i	na	Lupadakhe	J, ibid. 1.5
25	18	ii	pa	Adipayaṁti	S, ibid. 1.1
26	19	i	ba	Balana	J, ibid. 1.4
27	20	i	bhā	Sabhāva	S, ibid. 1.1
28	20	ii	bhū	Hāsāvānūbhūte	S, ibid. 1.2
29	21	i	ma	Nama	J, ibid. 1.3
30	21	ii	ma	Kamayitha	S, ibid. 1.4

31	21	iii	ma	Nama	J, ibid.	1.5
32	22	i	ya	Adipayaṁti	S, ibid.	1.1
33	22	ii	yā	Vasaṁtiyā	S, ibid.	1.2
34	22	iii	yi	Kamayitha	J, ibid.	1.4
35	22	iv	ye	Balanaseye	J, ibid.	1.4
36	22	v	yo	Kavayo	S, ibid.	1.1
37	22	vi	yaṁ	Hadyaṁ	S, ibid.	1.1
38	23	i	rā	Rātayaṁ	S, ibid.	1.1
39	23	ii	ru	Sabhāvagaru	S, ibid.	1.1
40	24	i	la	Balana	J, ibid.	1.4
41	24	ii	le	Dule	S, ibid.	1.2
42	24	iii	lu	Lupadakhe	J, ibid.	1.5
43	24	iv	laṁ	Alaṁga	S, ibid.	1.2
44	25	i	va	Vasaṁtiyā	S, ibid.	1.2
45	25	ii	vā	Hāsāvānūbhūte	S, ibid.	1.2
46	25	iii	vaṁ	Evaṁ	S, ibid.	1.2
47	26	i	śi	Devadaśikyi	J, ibid.	1.3
48	26	ii	śu	Śutanuka	J, ibid.	1.3
49	26	iii	śe	Balanaśeye	J, ibid.	1.4
50	27	i	sa	Sabhāvagaru	S, ibid.	1.1
51	19	ii	sa	Hāsāvānūbhūte	S, ibid.	1.2
52	19	iii	saṁ	Vasaṁtiyā	S, ibid.	1.2
53	20	i	ha	Hadayaṁ	S, ibid.	1.1
54	20	ii	hā	Hāsāvānūbhūte	S, ibid.	1.2
55	21	i	spha	Kudasphataṁ	S, ibid.	1.2
56	21	ii	kyi	Devadaśikyi	J, ibid.	1.3

Explanation of Table VI. Plate II.

Besnagar Pillar Inscription of Heliodorus

Ref : *Narain, A. K., IG. Plate VI. 2*

1	1	i	a	Ayaṁ	line 1
2	1	ii	ā	Āgatena	1.4
3	2	i	i	Ia	1.2
4	3	i	u	Upaṁtā	1.5
5	5	i	o	Heliodoreṇa	1.2
6	6	i	kā	Sakāsaṁ	1.5
7	6	ii	ki	Aṁtalikitasa	1.5
8	6	iii	ke	Takhkhasilākena	1.3
9	6	iv	ko	Kosī	1.6
10	8	i	ga	Bhāga	1.2
11	9	i	cha	Chatudasena	1.7
12	9	ii	chā	Chāga	1.9
13	10	i	ja	Mahārāja	1.4
14	10	ii	je	Rājena	1.7
15	11	i	ña	Raña	1.5
16	13	i	ṭhi	Anuṭhitāni	1.8
17	14	i	ḍa	Garuḍa	1.1
18	15	i	ṇa	Heliodoreṇa	1.2
19	16	i	ta	Takhkhasilākena	1.3
20	16	ii	tā	Upaṁtā	1.5
21	16	iii	ti	Neyaṁti	1.9
22	18	i	da	Chatudasena	1.7
23	18	ii	di	Diyasa	1.3

24	18	iii	dū	Dūtena	1.4
25	18	iv	do	Deva	line 1
26	18	v	do	Heliodoreṇa	1.2
27	19	i	dha	Vadhamānasa	1.7
28	20	i	na	Dasena	1.7
29	20	ii	ni	Trini	1.8
30	20	iii	nu	Anuṭhitāni	1.8
31	20	iv	ne	Neyaṁti	1.9
32	21	i	pa	Padāni	1.8
33	21	ii	pu	Putreṇa	1.3
34	22	i	bha	Bhagabhadrasa	1.6
35	22	ii	bhā	Bhāgav	1.2
36	23	i	ma	Mahārājasa	1.4
37	23	ii	mā	Mānesa	1.7
38	23	iii	mu	Amuta	1.8
39	24	i	ya	Diyasa	1.3
40	24	ii	yo	Yonadūtana	1.4
41	24	iii	ya(ṁ)	Neyaṁti	1.9
42	25	i	ra	Trātārasa	1.6
43	25	ii	rā	Rājena	1.7
44	25	iii	ri	Kārite	1.2
45	25	iv	re	Heliodoreṇa	1.2
46	26	i	la	Takhkhasilākena	1.3
47	26	ii	li	Aṁtalikitasa	1.5
48	27	i	va	Vadhamānasa	1.7
49	27	ii	vā	Vā[sude]vasa	1.1
50	28	i	sa	Vā[sude]vasa	1.1
51	28	ii	si	Takhkhasilākena	1.3
52	28	iii	sī	Kosīputrasa	1.6
53	29	i	ha	H[e]liodoreṇa	1.2
54	29	ii	hā	Mahārājasa	1.4
55	30	i	khkha	Takhkhasilākena	1.3
56	30	ii	dhva	Dhvaja	1.1
57	30	iii	trā	Trātārasa	1.8
58	30	iv	pra	Apramāda	1.9
59	30	v	sva	Svagaṁ	1.8

Explanation of Table VII. Plate II

Coins Series I

Ref : *Allan* : *Catalogue of the Coins of Ancient India.*
JRAS : *Journal of the Royal Asiatic Society*

1	1	i	a	Ataktakā	Allan, Pl. XXXI. 7. rev,
2	1	ii	a	Agathuklaye	
3	3	i	u	Upagodasa	Allan, XXXV. 12. obv.
4	4	i	e	Erak [- /]	*JRAS*, 1900. Pl. VII. 7
5	6	i	ka	Dojaka	Allan, Pl. XXXI. 6. rev.
6	6	ii	kā	Kāḍasa	„ XIX, 15
7	6	iii	ki	Udehiki	„ XXXV. 16 obv.
8	7	i	kha	Kha	Rapson, *JRAS*. 1895. p.
9	8	i	ga	Negamā	Allan, XXXI. 2. obv.
10	8	ii	ga	Negamā	„ 7. obv.
11	8	iii	go	Upagodasa	„ XXXV. 18. obv,
12	8	iv	go	Go	Rapson, *JRAS*. Pl. I. 17

13	10	i	ja	Ja	„ „ Pl. 1. 15-16
14	10	ii	ja	Dojaka	Allan, XXXI. 6. rev.
15	12	i	ṭa	Vaṭasvaka	„ XXXIX. 2. obv.
16	14	i	ḍa	Kāḍasa	„ XIX. 15
17	16	i	ta	Patalevasa	
18	16	ii	tā	Tālima[ta or sa]	„ XXXI. I. rev.
19	16	iii	ti	Upātikyā	Allan, XXXV. 19
20	17	i	thu	Agathuklaye	
21	18	i	da	Upagodasa	Allan, XXXV. 18 obv.
22	18	ii	de	Udehaki	„ „ 16 obv.
23	18	iii	do	Dojaka	„ XXXI. 6 rev.
24	19	i	dha	Dhamapālasa	„ XVIII. 6
25	20	i	ne	Negama	Allan, XXXI. 2
26	20	ii	ne	Negama	„ XXXV. 1. obv.
27	21	i	pa	Upagodasa	„ XXXV. 18 obv.
28	21	ii	pā	Upātikyā	„ XXXV. 19. obv.
29	23	i	ma	Negama	„ pl. XXXI. 1. obv.
30	24	i	ya	Ya	Rapson, *JRAS*, 1895. pl.I.i
31	24	ii	ye	Agathuklaye	
32	24	iii	yo	Yo	Rapson, *JRAS*,1895. pl.I.i
33	25	i	ra	Raja[ne]	
34	25	ii	ra	Erak [–]	*JRAS*, VII. 7
35	25	iii	ri	Tipuri	Allan, XXXV. 14
36	26	i	le	Patalevasa	
37	26	ii	li	Tālima[ta or sa]	Allan, XXXI. 1. rev.
38	27	i	va	Patalevasa	
39	28	i	sa	Kāḍasa	Allan, XIX. 15
40	28	ii	sa	Kāḍasa	Allan, XIX. 18
41	28	iii	sa	Patalevasa	
42	29	i	ha	Udehaki	Allan, XXXV. 16 obv.
43	30	i	kla	Agathuklaye	
44	30	ii	klā	Upātikyā	Allan, XXXV. 19. obv.
45	30	iii	sva	Vaṭasvaka	Allan, XXXIX. 2

Explanation of Table VIII. Plate III

Coins and Seals : Series II

Ref : *CCAI Catalogue of the Coins of Ancient India* by Allan
Rairh : *Excavation at Rairh* by K. N. Puri

1	1	i	a	Arjunāyanāṁ	CCAI, pl. XIV. 11
2	3	i	u	Utamadatasa	ibid. pl. XXIV. 15
3	7	i	ka	Trakata	ibid. pl. XXIX. 10
4	7	ii	ko	Kosabi	ibid. p. XCIX
5	9	i	go	Gomatasa	ibid. pl. XXV. 4
6	9	ii	go	Gomatasu	ibid. pl. XXV. 5
7	10	i	gho	Vachhaghosa	Rairh, pl. XXVI. 6
8	12	i	chha	Vachhaghosa	ibid.
9	12	ii	chhū	Vachhūsatiya	ibid. pl. XXVI. 24
10	13	i	ja	Arjunāyanānāṁ	CCAI, pl. XIV. 11
11	13	ii	ja	Yaudhayānāṁ Jaya	ibid. pl. XXXIX. 10
12	13	iii	ja	Rājaña	ibid. pl. XXIX. 15
13	13	iv	ju	Arjunāyananaṁ	ibid. pl. XIV. 10
14	14	i	jha	Majhamikaya	ibid. p. CXXIV
15	15	i	ña	Rājaña	ibid. pl. XXIX. 15

16	18	i	ḍa	Trakata Janapaḍasa	CCAI, pl. XXIX. 10
17	19	i	ḍha	Daḍhamitasa	ibid, pl. XLIII. 16
18	21	i	ta	Sūyamitasa	ibid, pl. XIX. 12
19	21	ii	ta	Gomitasa	ibid. pl. XXV. 4
20	21	iii	ta	Gomatasa	ibid. pl. XXV. 9
21	21	iv	ta	Purushadatasa	ibid. pl. XXIV. 1
22	21	v	ti	Satimitasa	ibid. pl. XX. 1
23	21	vi	ti	Bahasatimi...	ibid. pl. XX. 3
34	23	i	da	Śeshadatasa	ibid. pl. XLIII. 18
25	23	ii	da	Janapadasa	ibid. pl. XXIX. 18
26	23	iii	de	Vishṇudevasa	ibid. pl. XIX. 13
27	24	i	dha	Yaudhaya	ibid. pl. XXXIX. 10
28	25	i	nā	Arjunāyanamāṁ	ibid. pl. XIV. 11
29	26	i	pa	Janapaḍasa	ibid. pl. XXIX. 16
30	26	ii	pa	Senāpatisa	Rairh, pl. XXVI. 6
31	26	iii	pu	Purushadatasa	CCAI, pl. XXIV. 1
32	28	i	ba	Bahasatimi...	ibid. pl. XX. 2
33	28	ii	bi	Śibi	ibid. p. CXXIV
34	28	iii	bi	Kosabi	ibid. p. XCIX
35	29	i	bhū	Balabhūtisa	ibid. pl. XXV. 22
36	30	i	ma	Gomatasa	ibid. pl. XXV. 4
37	30	ii	ma	Brahmam[i]trasa	ibid. pl. XIX. 11
38	30	iii	mā	Mālavānā	Rairh, pl. XXVI. 1
39	30	iv	mi	Sūyamitasa	CCAI, pl. XIX. 12
40	31	i	va	Arjunāyanānāṁ	ibid. pl. XIV. 11
41	31	ii	ya	Sūyamitasa	ibid. pl. XXV. 21
42	31	iii	yo	Yaudheyānāṁ	ibid. pl. XXXIX. 10
43	32	i	rā	Rāmadalasu	ibid. pl. XXIV. 6
44	32	ii	ru	Purushadatasa	ibid. pl. XXIV. 1
45	33	i	la	Balabhūtisa	ibid. pl. XXIV. 22
46	33	ii	la	Mālavāna	Rairh, pl. XXVI. 1
47	35	i	va	Vishṇudevasa	CCAI, pl. XIX. 13
48	35	ii	va	Vachhaghosa	Rairh, pl. XXVI. 6
49	35	iii	vā	Mālavāna	ibid. pl. XXVI. 1
50	35	iv	vi	Vishṇudevasa	CCAI, pl. XIX. 13
51	36	i	śa	Śeshadatasa	ibid. pl. XLIII. 18
52	36	ii	śi	Śibi	ibid. p. CXXIV
53	37	i	sha	Purushadatasa	ibid. pl. XXIV. 1
54	38	i	sa	Vishṇudatasa	ibid. pl. XIX. 13
55	38	ii	sa	Bahasatimi	ibid. pl. XX. 2
56	38	iii	sa	Daḍhamitasa	ibid. pl. XLIII. 16
57	38	iv	sa	Purushadatasa	ibid. pl. XXIV. 1
58	38	v	su	Suyamitasa	ibid. pl. XIX. 12
59	38	vi	su	Suyamitasa	ibid. pl. XXV. 21
60	39	i	ha	Bahasatimi...	ibid. pl. XX. 2
61	39	ii	hā	Mahārājasa	ibid. pl. XXXIX. 10
62	40	i	jña	Rājña	ibid. pl. XXIV. 10
63	40	ii	tra	Brahmam[i]trasa	ibid. pl. XIX. 11
64	40	iii	tra	Trakata	ibid. pl. XXIX. 10
65	40	iv	bra	Brahmam[i]trasa	ibid.
66	40	v	bra	Brahmamita	ibid. pl. XXV. 13
67	40	vi	shṇu	Vishṇudevasa	ibid. pl. XIX. 13
68	40	vii	hma	Brahmam[i]trasa	ibid. pl. XIX. 11

Explanation of Table IX Plate III

Sāñchī Series I

Ref : *Monuments of Sanchi Vol. III.* by J. Marshall

1	1	i	a	Arahata	CXXVIII. 1
2	2	i	i	Isimitasa	CXXIX. 60
3	3	i	u	Upasikaye	CXXVIII. 5
4	5	i	o	Ejavatasa	CXXVIII. 26
5	6	i	o	Oḍakasa	CXXVIII. 10
6	7	i	kā	Sirikāya	CXXVIII. 12
7	7	ii	ki	Vakiliyāna	CXXX. 10
8	7	iii	ku	Vakulasa	CXXXIV. 30
9	7	iv	ke	Kekaṭeya	CXXXIII. 17
10	7	v	ko	Koraghariyā	CXXXIV. Loose. 2
11	8	i	khi	Rakhitasa	CXXVIII. 1
12	8	ii	khi	Budharakhitasa	CXXVIII. 19
13	9	i	ga	Gahapatino	CXXXVIII. 2
14	9	ii	gu	Vajigutasa	CXXVIII. 11
15	9	iii	go	Bodhagothiye	CXXIX. 84
16	10	i	gha	Saghadatasa	CXXIX. 56
17	10	ii	ghi	Saghilasa	CXXXIII. 341
18	10	iii	ghu	Vāghumatā	CXXX. 126
19	11	i	cha	Nādivirohasa cha	CXXVIII. 22
20	11	ii	chi	Sūchi	CXXX. q
21	11	iii	chu	Kāchupathasa	CXXX. 159
22	12	i	chhu	Bhichhuniyā	CXXVIII. 14
23	13	i	ja	Jayaye	CXXVIII. 2
24	13	ii	ja	Jamata	CXXVIII. 17
25	13	iii	ja	Vesaṁjakasa	CXXX. 127 C. T.
26	13	iv	jā	Pajāvatiyā	CXXVIII. 28
27	13	v	ji	Vajigutasa	CXXVIII. 11
28	14	i	jhā	Sijhāye	CXXX. 149
29	14	ii	jhi	Majhimaya	CXXX. 162
30	15	i	ña	Dhañaya	CXXVIII. 2
31	15	ii	ñā	Ñātī	CXXIX. 91
32	16	i	ṭi	Paṭi	CXXX. 110
33	16	ii	ṭe	Kekaṭeyaka	CXXVIII. 17
34	17	i	ṭha	Poṭhadevāya	CXXVIII. 24
35	17	ii	ṭhi	Patiṭhiyasa	CXXVIII. 2
36	18	i	ḍi	Kamdaḍigāmiyasa	CXXVIII. 30
37	18	ii	ḍī	Vaḍīvahanā	CXXVIII. 10
38	19	i	ḍha	Vaḍhananā	CXXIX. 84
39	19	ii	ḍhi	Avaḍhiya	CXXXX. p
40	20	i	ṇi	Hohaṇiya	CXXIX. 53
41	21	i	ta	Arahata	CXXVIII. 1
42	21	ii	ti	Chiratiya	CXXIX. 95
43	21	iii	tī	Ñātī	CXXIX. 91
44	21	iv	tu	Bhātu	CXXVIII. 2
45	21	v	to	Vādīvahanāto	CXXVII. 10
46	22	i	tha	Thabho	CXXIX. 91
47	23	i	da	Danaṁ	CXXVIII. 7
48	23	ii	dā	Dānaṁ	CXXVIII. 11
49	23	iii	dā	Dānaṁ	CXXXX. 5
50	23	iv	di	Dihitu	CXXXX. q
51	23	v	di	Vedisa	CXXVIII. 1

52	23	vi	de	Soṇadevāya	CXXXI. 181
53	24	i	dha	Dhamagirikasa	CXXVIII. 18
54	24	ii	dhi	Budhilasa	CXXXIII. 7
55	24	iii	dhu	Madhuvana	CXXX. 144
56	25	i	no	Gahapatino	CXXVIII. 4
57	25	ii	naṁ	Dādaṁ	CXXVIII. 18
58	26	i	pā	Pāvārikasa	CXXX. 119
59	26	ii	pu	Putasa	CXXXI. 190
60	26	iii	pu	Vipulāya	CXXIX. 74
61	26	iv	pe	Opedadatasa	CXXIX. 61
62	26	v	po	Poṭhadevāya	CXXVIII. 24
63	27	i	phi	Saphineyakānā	CXXIX. 80
64	27	ii	phu	Phujakapadiyasa	CXXX. 117
65	28	i	ba	Tubayanā	CXXVIII. 3a
66	28	ii	bu	Budharakhitasa	CXXVIII. 19
67	28	iii	bu	Budhapaliṭa	CXXXI. 186
68	28	iv	be	Abeyakasa	CXXXI. 201
69	28	v	bo	Bodhagothiya	CXXIX. 84
70	28	vi	bo	Bodhiyā	CXXXIV. Pavement. 16
71	29	i	bha	Bhadatasa	CXXXI. 195
72	29	ii	bhā	Bhātu	CXXVIII. 2
73	29	iii	bhi	Bhichhuno	CXXVIII. 8
74	29	iv	bhū	Bhūtikāya	CXXXX. q
75	29	v	bho	Bhogavadhana	CXXX. 145
76	30	i	ma	Sāmanerasa	CXXXI. 201
77	30	ii	ma	Vāghūmato	CXXX. 126
78	30	iii	ma	Dhamarakhitasa	CXXXI. 176
79	30	iii	mā	Mātu	CXVVIII. 18
80	30	iv	mu	Mulagirino	CXXIX. 34
81	30	vi	mū	Bumūsa	CXXIX. 40
82	31	i	ya	Patiṭhiyasa	CXXVIII. 2
83	31	ii	ya	Jāyaya	CXXVIII. 2
84	31	iii	ya	Patiṭhiyasa	CXXVIII. 4
85	31	iv	yu	Vāyudhataya	CXXIX. 61
86	32	i	ra	Rakhita	CXXVIII. 1
87	32	ii	ri	Pavārikasa	CXXX. 119
88	32	iii	ru	Varuṇasa	CXXXIV. pavements 8
89	32	iv	ro	Virohasa	CXXVIII. 23
90	32	v	ro	Rohapiya	CXXIX. 53
91	33	i	la	Vasulāya	CXXX. 122
92	33	ii	la	Sila	CXXXIV. loose. 2
93	33	iii	li	Bulikasa	CXXXIII. 324
94	33	iv	le	Lekhakasa	CXXIX. 34
95	34	i	ḷī	Vāḷīvahanā	CXXXI. 187
96	35	i	va	Tubavana	CXXVIII. 2
97	35	ii	vā	Soṇadevāya	CXXXI. 181
98	35	iii	vu	Nadāvuno	CVXXIII. 23
99	35	iv	ve	Vedisa	CXXVIII. 1
100	38	i	sa	Vedisa	CXXVIII. 1
101	38	ii	sa	Chasa	CXXXI. 190
102	38	iii	sā	Dhamayasāsa	CXXXX. m
103	38	iv	so	Sonasa	CXXIX. 57
104	38	v	so	Sonadevāya	CXXXI. 181
105	39	i	ha	Arahata	CXXVIII. 1

106	39	ii	hi	Himadataya	CXXIX. 66
107	39	iii	hu	Husā	CXXIX. 62
108	40	i	ḍra	Asāḍrasa	CXXXI. 340
109	40	ii	nha	Jonhakasa	CXXXIVI. 286
110	40	iii	nhu	Nhusā	CXXFIII. 3a
111	40	iv	ṇhu	Viṇhumitasa	CXXXIV. loose. 15
112	40	v	sva	Asvadevaye	CXXIX. 97

Explanation of Table X. Plate III.

Sāñchī Series II

Ref : *Monuments of Sanchi* : *Vol. III.* by J. Marshall

1	1	i	a	Avasa	Stūpa II. CXXXVI. 2
2	1	ii	ā	Ājanāva	CXXXVI. 31
3	2	i	i	Isilasa	CXXXVI. 16
4	3	i	u	Udubara	CXXXVI. 22
5	7	i	ku	Pāḍukulikāya	CXXXVI. 5
6	7	ii	ko	Koḍāya	CXXXVI. 24
7	7	iii	ko	Korariyasa	CXXXVI. 34
8	8	i	khi	Dhamarakhitasa	CXXXVI. 3
9	8	ii	khu	Bhikhuniya	CXXXVI. 47
10	8	iii	khu	Bhikhuno	CXXXVI. 24
11	8	iv	kha	Visākhasa	CXXXVI. 30
12	9	i	ga	Bhogavadhanākasa	CXXXVI. 6
13	9	ii	gi	Moragirino	CXXXVI. 12
14	9	iii	gu	Phagulāya	CXXXVI. 40
15	9	iv	go	Gotiputasa	CXXXVI. C
16	10	i	gha	Saghamitasa	CXXXVI. 17
17	10	ii	gha	Saghamitasa	CXXXVII. 53
18	11	i	chu	Chuḍa	CXXXVI. 12
19	12	i	chha	Achh[ā]va	CXXXVI. 32
20	12	ii	chhi	Vāchhi	CXXXVI. g
21	13	i	ja	Ājanāvā	CXXXVI. 31
22	14	i	jha	Sejhasa	CXXXVI. 3
23	16	i	ṭi	Kaṭiyasa	CXXXVI. 13
24	17	i	ṭhi	Seṭhisa	CXXXVI. 32
25	18	i	ḍā	Gaḍāya	CXXXVI. 42
26	18	ii	ḍu	Pāḍukulikāya	CXXXVI. 5
27	19	i	ḍha	Bhogavaḍhanakasa	CXXXVI. 6
28	20	i	ṇa	Kiṇasa	CXXXVI. 18
29	20	ii	ṇi	[Ro]haṇikasa	CXXXVI. 22
30	21	i	ta	Saghamitasa	CXXXVI. 53
31	21	ii	ti	Gotiputasa	CXXXVI. C
32	22	i	tha	Thabho	CXXXVI. 42
33	22	ii	thū	Pāthūpaka[sa]	CXXXVII. Slab. 2
34	23	i	dā	Dāna	CXXXVII. 53
35	23	ii	dā	Dānaṁ	CXXXVI. 41
36	24	i	dhi	Budhilasa	CXXXVI. 6
37	25	i	nā	Nāgapalitaya	CXXXVI. 37
38	25	ii	no	Seṭhino	CXXXVI. 19
39	26	i	pā	Pāḍukulikāya	CXXXVI. 5
40	26	ii	pi	Nāgapiyasa	CXXXVI. 32
41	26	iii	pu	Pusarakhitasa	CXXXVI. 4

42	26	iv	pu	Gotiputasa	CXXXXVI. C
43	26	v	po	Pokhareyakasa	CXXXXVII. 25
44	27	i	phi	Sāphineyikaya	CXXXVII. Steps. 1
45	28	i	bu	Budhapālitasa	CXXXVI. 19
46	28	ii	bu	Budhilasa	CXXXVI. 6
47	29	i	bhi	Bhikhuno	CXXXVI. 27
48	29	ii	bho	Bhogavadhana	CXXXVI. 6
49	30	i	ma	Sumanasa	CXXXVI. 8
50	30	ii	ma	M[o]gali	CXXXX. b
51	30	iii	mi	Saghamitasa	CXXXVII. 53
52	31	i	ya	Korariya	CXXXVI. 34
53	31	ii	ya	Ayasa	CXXXVII. 64
54	31	iii	ye	Niye	CXXXVI. 35
55	32	i	ri	Girino	CXXXVI. 12
56	32	ii	ro	Rohani	CXXXVII. Berm. 14
57	33	i	la	Budhilasa	CXXXVI. 6
58	33	ii	li	Pāḍakulikāya	CXXXVI. 5
59	35	i	vā	Vāchhi	CXXXX. g
60	35	ii	vi	Suvijaya	CXXXX. g
61	38	i	sa	Budhilasa	CXXX.
62	38	ii	vi	Suvijaye	CXXXX. g
63	39	i	hā	Sihāya	CXXXVI. 38
64	39	ii	hi	Hikaṭiyasa	CXXXVI. 13
65	40	i	nhu	Sunhusāya	CXXXVII. 56

Explanation of Table XI. Plate III

Bhārhut Series I

Ref : *C=Cunningham, Stūpa of Bhārhut, Plates LIII-LVI*
ZDMG=Vol. XL. Plates I and II.

1	1	i	a	Ayanāgadevasa	C. LIII. Copingo. I
2	1	ii	a	Ayananthakasa	ibid. LIII. Pillars. 5
3	2	i	i	Isimigo	ibid. LIII. Coping. 9
4	2	ii	i	Isāya	ZDMG, pl. II. 112
5	3	i	u	Udajataka	C. LIII. Coping. 14
6	4	i	ū	Ūkranti	ibid. LI. 89
7	5	i	e	Erapato	ibid. LIV. 43
8	7	i	ka	Jataka	ibid. LIII. Coping 2
9	7	ii	ki	Punakiya	ibid. LIV. 75
10	7	iii	ku	Chikulaniyasa	ibid. LIV. 77
11	7	iv	ko	Vaḍukokatha	ibid. LIII. Coping 18
12	8	i	khi	Bhutarakhitasa	ibid. LIII Coping 2
13	8	ii	khi	Mahamukhisa	ibid. LIII. Pillars.
14	8	iii	khu	Khujati	ibid. LIII. ,, 2
15	8	iv	kho	Yakho	ibid. LIII. ,, 15
16	8	v	kho	Yako	ibid. LV. 83
17	9	i	gā	Nāgadevasa	ibid. LIII. Copings 1
18	9	ii	gi	Dusitogiri	ibid. LIII. 22
19	9	iii	go	Isimigo	ibid. LIII. 9
20	10	i	gha	Magha	ibid. LIII. 2
21	10	ii	ghā	Ghāṭila	ibid. LVI. 45

22	10	iii	ghi	Saghilasa	ibid. LVI. 28
23	10	iv	gho	Ghosāye	ibid. LVI. 57
24	11	i	cha	Chatiya	ibid. LIII. Copings. 4
25	11	ii	chā	Chāpadevāya	ibid. LIII. Pillars. 1
26	11	iii	chi	Chitupāda	ibid. LIII. Copings 21
27	11	iv	chu	Chulakoka	ibid. LIII. Pillars. 6
28	11	v	chū	Chūḍa	ibid. LIV. 64
29	11	vi	che	Dodapadechena	ibid. LIV. 70
30	12	i	chha	Sechha	ibid. LIII. Coping. 15
31	12	ii	chhi	Kuchhimha	ibid. LVI. 66
32	12	iii	chhu	Bhichhuniya	ibid. LIII. Pillars. 7
33	13	i	ja	Jataka	ibid. LIII. Copings. 2
34	13	ii	jā	Sujāto	ibid. LIII. Coping. 5
35	13	iii	jā	Jātaka	ibid. LIII. Coping 12
36	13	iv	jā	Jātaka	ibid. LIV. 58
37	13	v	ji	Pasenaji	ibid. LIV. 40
38	13	vi	je	Jeṭhbharasa	ibid. LVI. 40
39	14	i	jha	Majhakāya	ibid. LIV. 58
40	14	ii	jhi	Yajhikiya	ibid. LV. 8
41	15	i	ña	Ñati	ibid. LIII. Coping. 8
42	15	ii	ño	Rāño	ibid. LVI. 67
43	16	i	ṭa	Kukuṭa	ibid. LIII. Copings 6
44	16	ii	ṭi	Jaṭila	ibid. LIII. Copings 13
45	16	iii	ṭu	Saṭupadānasa	ibid. LV. 80
46	17	i	ṭha	Paṭhama	ibid. LIII. Pillars. 1
47	17	ii	ṭhi	Puraṭhima	ibid. LIV. 29
48	18	i	ḍa	Yamiḍasa	ibid. LVI. 58
49	18	ii	ḍā	Biḍāla	ibid. LIII. Copings. 6
50	18	iii	ḍi	Anādhapeḍiko	ibid. LIII. Pillars. 20
51	18	iv	ḍu	Vaḍukokatha	ibid. LIII. Copings. 18
52	18	v	ḍe	Paḍelakasa	ibid. LVI. 61
53	18	vi	ḍo	Naḍoḍe	ibid. LIII. Copings. 19
54	19	i	ḍha	Vaḍhanivasa	ibid. LV. 85
55	20	i	ṇā	Bhuṇā	ibid. LIII. Pillars. 3
56	21	i	ta	Bhadata	ibid. LIV. 77
57	21	ii	ta	Tapasi	ibid. LIII. Copings 3
58	21	iii	ti	Revatimita	ibid. LIII. Pillars. 1
59	21	iv	tu	Dhitu	ibid. LIII. Pillars. 7
60	21	v	to	Gahuto	ibid. LIII. Copings. 5
61	22	i	tha	Thabho	ibid. LIII. Pillars. 1
62	22	ii	thi	Purathima	ibid. LIV. 29
63	22	iii	thi	Chudathīlikāya	ibid. LV. 5
64	22	iv	thu	Thupadāsa	ibid. LV. 86
65	23	i	di	Vedisa	ibid. LIII. Pillars. 1
66	23	ii	du	Nadutaraya	ibid. LV. 12
67	23	iii	de	Devāyā	ibid. LIII. Pillars. 1
68	23	iv	de	Ḍodapāde	ibid. LIV. 70
69	24	i	dha	Nigodha	ibid. LIV. 44
70	24	ii	dhā	Anurādhāya	ibid. LIV. 73
71	24	iii	dhi	Bodhi	ibid. LIII. 3
72	24	iv	dhu	Asadāvadhu	ibid. LIII. Copings. 8
73	24	v	dhu	Dhutasa	ibid. LVI. 30
74	25	i	nā	Nāgadevasa	ibid. LIII. Copings. 1
75	25	ii	nu	Anurādhāya	ibid. LIV. 73

76	25	iii	no	Gahapatino	ibid. LIII. Pillar 14
77	25	iv	naṁ	Dānaṁ	ibid. LIII. Pillar 1
78	26	i	pa	Tapasi	ibid. LIII. Copings 3
79	26	ii	pi	Kupiro	ibid. LV. 83
80	26	iii	pu	Pāṭaliputako	ibid. LV. 2
81	26	iv	paṁ	Paṁthakasa	ibid. LIII. Pillars. 5
82	27	i	pha	Phagudevasa	ibid. LIV. 69
83	28	i	bi	Biḍāla	ibid. LIII. Copings 6
84	28	ii	bī	Chūdabīikāya*	ibid. LIII. Pillars. 9
85	28	iii	bu	Budhino	ibid. LIII. Pillars. 14
86	28	iv	bu	Yaṁbumano	ibid. LV. 97
87	28	v	bū	Jabū	ibid. LIII. Copings 19
88	28	vi	bo	Abode	ibid. LIII. Copings 4
99	29	i	bhā	Sabhā	ibid. LIII. Copings 13
90	29	ii	bhi	Bhisaharaniya	ibid. LIII. Copings. 17
91	29	iii	bhu	Bhutakasa	ibid. LIV. 52
92	29	iv	bhu	Bhutarakhitasa	ibid. Pillars 2
93	29	v	bhū	Dhanabhūtisa	ibid. LVI. 54
94	29	vi	bho	Thabho	ibid. LIII. Pillars. 1
95	30	i	ma	Paṭhama	ibid. LIII. Pillars. 1
96	30	ii	mā	Mānayako	ibid. LIV. 76
97	30	iii	mi	Revatimita	ibid. LIII. Pillars. 1
98	30	iv	mu	Mahamukhisa	ibid. LIII. Pillars. 7
99	30	v	mo	Moragirimha	ibid. LIV. 67
100	31	i	ya	Aya	ibid. LIII. Copings. 1
101	31	ii	yā	Bhāriyāya	ibid. LIII. Pillars. 1
102	32	i	ra	Gorakhitasa	ibid. LIII. Pillars. 4
103	32	ii	rā	Rāja	ibid. LIII. Copings. 20
104	32	iii	ri	Giri	ibid. LIII. Copings. 22
105	32	iv	ro	Chharo	ibid. LIV. 70
106	32	v	ro	Kupiro	ibid. LV. 82
107	33	i	la	Biḍāla	ibid. LIII. Copings. 6
108	33	ii	lo	Bodhisālo	ibid. LIII. Pillars. 3
109	35	i	va	Nāgadevasa	ibid. LIII. Copings. 1
110	35	ii	vi	Deviya	ibid. LIII. Copings. 2
111	35	iii	vi	Devi	ibid. LIII. Copings. 20
112	35	iv	ve	Vedisā	ibid. LIII. Pillars. 1
113	38	i	sā	Vedisā	ibid. LIII. Pillars. 1
114	38	ii	si	Silā	ibid. LIII. Copings. 21
115	38	iii	si	Dusito	ibid. LIII. Copings. 22
116	38	iv	su	Sujāto	ibid. LIII. Copings. 5
117	38	v	su	Vasukasa	ibid. LV 87
118	38	vi	se	Sechha	ibid. LIII. Copings. 15
119	38	vii	so	Somāya	ibid. LV. 3
120	39	i	hi	Mahila	ZDMG, Pl. I. 89
121	39	ii	hī	Mahīdasana	ibid. pl. II. 112
122	39	iii	hu	Gahuto	C. LIII. Copings. 5
123	39	iv	haṁ	Haṁsa	ibid. LIII. Copings. 11
124	40	i	kram	Ūkraṅti	ibid. LV. 89
125	40	ii	nkha	Atankhatasa	ibid. LVI. 46
126	40	iii	nhi	Kanhilasa	ibid. LV. 18

* CHUDATHILIKĀYA : Cunningham's reading.

127	40	iv	bra	‡Bramhadevo	ibid. LIV. 76
128	40	v	mha	Girimha	ibid. LIV. 67
129	40	vi	mha	‡Bramhadevo	ibid. LIV. 76
130	40	vii	dra	Bhadrasa	ZDMG. Pl. II. 133

‡ MHA : Cunningham Reads this as hma.

Explanation of Table XII. Plate III

Ghosundi Stone Inscription

Ref : *EI, Vol. XVI.* (*1921-22*) *and Plate*

1	7	i	ka	Saṁkarshaṇa	Line 2
2	7	ii	kā	Prākāro	1.3
3	9	i	gā	Gājāyanena	1.1
4	13	i	jā	Gājāyanena	1.1
5	16	i	ṭa	Vāṭaka	1.3
6	20	i	ṇa	Nārāyaṇa	1.3
7	23	i	de	Devābhyāṁ	1.2
8	25	i	ne	Gājāyanena	1.6
9	26	i	pā	Pārāśara	1.1
10	26	ii	pu	Putreṇa	1.1
11	26	iii	pū	Pūjā	1.3
12	29	i	bha	Bhagavabhyāṁ	1.2
13	31	i	ya	Gājāyanena	1.1
14	32	i	rā	Pārāśari	1.1
15	32	ii	ri	Pārāśari	1.1
16	32	iii	ro	Prākāro	1.1
17	33	i	lā	Śilā	1.3
18	35	i	vā	Vāsudevābhyāṁ	1.2
19	36	i	śa	Pārāśari	1.1
20	36	ii	śi	Śilā	1.3
21	38	i	su	Vāsudevābhyāṁ	1.2
22	40	i	tra	Putreṇa	1.1
23	40	ii	prā	Prākāro	1.3
24	40	iii	bhyāṁ	Bhagavabhyāṁ	1.2
25	40	iv	rsha	Saṁkarshaṇa	1.2

Explanation of Table XIII. Plate III

Bhilsa inscription of Bhāgavata

Ref : *Memoirs of Archaeological Survey of India,*
No 5, Pl. XXVI

1	9	i	go	Gotamā	line 1
2	13	i	ja	Dhvaja	1.5
3	18	i	ḍa	Garuḍa	1.5
4	21	i	ta	Gotama	1.1
5	21	ii	te	Bhāgavate	1.7
6	21	iii	te	Bhāgavatena	1.2
7	23	i	da	Dasa	1.6
8	25	i	na	Putrena	1.1
9	26	i	pu	Putrena	1.1
10	26	ii	bhā	Bhāgavatena	1.2

11	30	i	ma	Gotama	1.1
12	35	i	va	Bhāgavatena	1.7
13	38	i	sa	Dasa	1.6
14	40	i	tre	Putrena	1.1
15	40	i	prā	Prāsā[do]	1.4
17	33	i	li	Mālini	1.3
18	35	i	va	Va	1.2
19	35	ii	vi	Vir [ā] ya	1.1
20	14	i	sa	Chaturasata	1.2

Explanation of Table XIV. Plate III

Barlī Fragmentary Inscription

Ref : *IA*, 1929, *Pl. facing p. 229*

1	7	i	ke	Majhimike	1.4
2	9	i	ga	Bhagavata	1.1
3	11	i	cha	Chaturasata	1.2
4	13	i	jhi	Majhimike	1.4
5	17	i	ṭha	Ni [vi] ṭha	1.4
6	21	i	ta	Chatursata	1.2
7	21	ii	tu	Chaturasata	1.2
8	25	i	ni	Ni [vi] ṭha	1.4
9	29	i	bha	Bhagavate [e]	1.1
10	30	i	mā	Mālini	1.3
11	30	ii	mi	Majhimike	1.4
12	31	i	ya	Vir [ā] ya	1.1
13	31	ii	ye	[Kā] ye	1.3
14	32	i	rā	Vir [ā] ya	1.1
15	32	ii	ra	Caturasata	1.2
16	32	iii	raṁ	Raṁ	1.4

Explanation of Table XV. Plate IV

Coins and Seals : Series III

Ref : *A=Allan, Catalogue of the Coins of Ancient India.*
J=Journal of the Numismatic Society of India
R=Puri, K. N., Excavations at Rairh.

1	1	i	a	Amoghabhutisa	A. XXII. 1
2	2	i	i	Idrarr itasa	A. XXIX. 1
3	5	i	o	Odabarisa	A. XIV. 14
4	6	i	ku	Kunidasa	A. XXII. 1
5	7	i	kha	Khatapana	A. XXVI. 6
6	8	i	gā	Hagāmashasa	A. XXVI. 6
7	8	ii	gi	Agimitasa	A. XXVIII. 8
8	8	iii	gu	Phagunimitrasa	A. XXVII. 11
9	9	i	gha	Amoghabhutisa	A. XXII. 3
10	9	ii	gho	[A]śvaghosha	A. XX. 6
11	9	iii	gho	Dharaghoshasa	A. XIV. 14
12	12	i	ja	Maharajasa	A. XXIII. 1
13	12	ii	ju	Rajuvulasa	A. XXVI. 12
14	14	i	ño	Raño	A. XIV. 14
15	17	i	ḍā	Saḍāsasa	A. XXVI. 16
16	20	i	ṭa	Khatapasa	A. XXVI. 2

17	21	i	thi	Hathipalasa	J. Vol. 24. Pl. II. 12
18	22	i	da	Sivadatasa	A. XIV. 7
19	22	ii	dā	Odābarisa	A. XV. 5
20	22	iii	de	Dhanadevasa	A. XX. 12
21	23	i	dha	Dharaghoshasa	A. XIV. 14
22	23	ii	dha	Dhanadevasa	A. XX. 12
23	24	i	na	Dhanadevasa	A. XX. 12
24	24	ii	ni	Phagunimitrasa	A. XXVII. 11
25	24	iii	nu	Bhānumitrasa	J. Vol. 25
26	25	i	pa	Khatapasa	A. XXVI. 3
27	25	ii	pā	Śivapāl[itasa]	A. XIV. 8
28	25	iii	pu	Khatapasaputrasa	A. XXVI. 14
29	26	i	pha	Phagunimitrasa	A. XXVII. 14
30	27	i	ba	Odabarisa	A. XV. 5
31	28	i	bha	Bhagavata	A. XIV. 16
32	28	ii	bhu	Amoghabhutisa	A. XXII. 1
33	28	iii	bhū	Amoghabhūtisa	A. XXIII. 1
34	29	i	ma	Mahārājasa	A. XXII. 1
35	29	ii	ma	Maharajasa	A. XXIII. 1
36	29	iii	mi	Phagunimitrasa	A. XXVII.
37	30	i	ya	Sūyamitasa	A. XXVII. 8
38	31	i	ra	Dharaghoshasa	A. XIV. 14
39	31	ii	rā	Mahārājasa	A. XXII. 1
40	31	iii	ru	Rudraguptasa	A. XXVII. 1
41	32	i	la	Śivapāl[itasa]	A. XIV. 8
42	34	i	va	Sivadatasa	A. XIV. 7
43	34	ii	va	Śivapā[lita]sa	A. XIV. 8
44	34	iii	vi	Vishṇumitrasa	A. XXIX. 8
45	35	i	śi	Śivapā[lita]sa	A. XIV. 8
46	36	i	sha	[A] Śvaghosha	A. XX. 6
47	37	i	sa	Amoghabhutisa	A. XXII. 3
48	37	ii	si	Sivadatasa	A. XIV. 7
49	38	i	ha	Hari[data]sa	A. XIV. 9
50	38	ii	ha	Hathipalasa	J. Vol. 24 Pl II. 12
51	38	iii	hā	Mahārājasa	A. XXII. 1
52	39	i	jña	Rājña	A. XIV. 13
53	39	ii	jña	Rājña	A. XXII. 1
54	39	iii	tra	Vishṇumitrasa	A. XXIX. 8
55	40	i	tra	Phagunimitrasa	A. XXVII. 11
56	40	ii	dra	Idramitasa	A. XXIX. 3
57	40	iii	dhru	Dhruvamitrasa	A. XXVII. 6
58	41	i	pta	Rudraguptasa	A. XXVII. 1
59	41	ii	śva	[A]śvaghosha	A. XX. 6
60	41	iii	shṇu	Vishṇumitrasa	A. XXIX. 8

Explanation of Table XVI. Plate IV

Sāñchi Series no. III

Ref : *Marshall, Monuments of Sāñchī. Vol. III.*

1	1	i	a	Atevāsino	Pl. CXXXIV. WG. 1
2	1	ii	ā	Āvesani	Pl. CXXXIV. SC. 1. line. 2

3	2	i	i	...ito	Pl. CXXXIV. EG. 2 line 1
4	3	i	u	Upāḍā	Pl. CXXXIV. EG.2, 1.2
5	6	i	ka	Sātakaṇisa	Pl. CXXXIV. SG.2, 1.1
6	7	i	khu	Bhikhuno	Pl. CXXXVII. Stupa III. 14
7	8	i	ga	Nāgap[i]yasa	Pl. CXXXIV. WG. 2
8	8	ii	gi	Dhamagirisa	Pl. CXXXVII Stūpa. III. 16
9	9	i	gha	Ghatina	Pl. CXXXIV. EG. 2. 1.4a
10	9	ii	ghā	Ghātina	Pl. CXXXIV. EG. 2. 1.3b
11	10	i	cha	Āchariya	Pl. CXXXIV. EG. 2. 1.2
12	10	ii	chu	Ayachuḍasa	Pl. CXXXIV. WG. 1
13	11	i	chhā	Achhāvaḍa	Pl. CXXXIV. EG. 3
14	11	ii	chhe	Gachheya	Pl. CXXXIV. WG. 3a
15	14	i	ño	Rāño	Pl. CXXXIV.SG.1. 1.1
16	16	i	ṭhi	Saṭhisa	Pl. CXXXIV. EG. 3
17	17	i	ḍa	Ayachuḍasa	Pl. CXXXIV. WG. 1
18	19	i	ṇa	Kākāṇāva	Pl. CXXXIV. WG. 3a
19	19	ii	ṇi	Sātakaṇisa	Pl. CXXXIV.SG.1.1.1
20	20	i	ta	Arhaṁta	Pl. CXXXIV. EG. 2.1. 4a
21	20	ii	ta	Sātakaṇisa	Pl. CXXX1V.SG.1.1.1
22	21	i	tha	Thabho	Pl. CXXXIV. EG. 3
23	22	i	da	Apaṁdasa	Pl. CXXXIV.SG.1. 1.3
24	22	ii	dā	Dāna	Pl. CXXXIV. EG. 3
25	22	iii	di	Dinasa	Pl. CXXIX. 90
26	23	i	dha	Dhamaka	Pl. CXXXIV.SG.2. 1.1
27	24	i	na	Dāna	Pl. CXXXIV. EG. 3
28	24	ii	no	Vāsino	Pl. CXXXIV. WG. 1
29	24	iii	naṁ	Ānaṁdasa	Pl. CXXXIV. SE.1,1.3
30	25	i	pa	Rohaṇiyapadiya	Pl. CXXXIII. 322
31	25	ii	pu	Putrasa	Pl. CXXXIV.SG.1, 1.2
32	25	iii	po	Pokhareyakasa	Pl. CXXIV. 90
33	27	i	ba	Balamitrasa	Pl. CXXXIV.SG.2,1.1
34	27	ii	bu	Bulikasa	Pl. CXXXIII. 324
35	27	iii	bu	Budhapālinasa	Pl. CXXXIII. 356
36	28	i	bhi	Bhikhuno	Pl. CXXXVII. 10
37	28	ii	bho	Thabho	Pl. CXXXIV. EG. 3
38	29	i	mi	Isimitrasa	Pl. CXXXVII. 14
39	29	ii	mū	Mūlasa	Pl. CXXXVII. 10
40	29	iii	me	Saṁkāmeya	pl. CXXXIV. WG. 3b
41	30	i	ya	Nāgapiyasa	Pl. CXXXIV. WG. 2
42	30	ii	ya	Gachheya	Pl. CXXXIV. WG. 3b
43	31	i	ra	Arahadinasa	Pl. CXXIX. 90
44	31	ii	ri	Siri	Pl. CXXXIV.SG.1, 1.1
45	31	iii	ro	Rohaṇiyapadiya	Pl. CXXXIII. 322
46	32	i	la	Balamitasa	Pl. CXXXIV. WG. 1
47	32	ii	li	Budhapālinasa	Pl. CXXXIII. 356
48	34	i	va	Achhāvaṇa	Pl. CXXXIV. EG. 3
49	34	ii	vā	Vāsithi	Pl. CXXXIV. SG.1, 1.2
50	37	i	sa	Dinasa	Pl. CXXIX. 90

51	37	ii	si	Siri	Pl. CXXXIV. SG.1, 1,1
52	38	i	ha	Avahadinasa	Pl. CXXIX. 90
53	38	ii	hi	Dantakārehi	Pl. CXXXIV. SG. 3
54	39	i	tra	Mitrasa	Pl. CXXXVII. 14

Explanation of Table XVII. Plate IV

Mathurā Kshatrapa Inscriptions

Ref : A=Bühler, Mathurā Jaina Inscriptions (New Series) *EI.* Vol. II. Nos. 1-10.

C=Morā Stone Slab Inscription, *Mem. ASI.* no. 1, Plate VI. no. 5.

D=Mathurā Fragmentary Pillar Inscription of the time of Śoḍāsa, *Mem. ASI.* No. 5, Plate XXVI. b.

E=Mathurā Stone Inscriptions of the time of Śoḍāsa, *JRAS* (1870).

1	1	i	ā	Ārchā	C. line 4
2	2	i	i	Imāshā	E. 1.2
3	2	ii	iṁ	Iṁdrapā...	A. 9, 1.2
4	3	i	u	Utaradāsaka	A. 1
5	6	i	ko	Kochhiye	A. 2, 1.3
6	7	i	khi	Mahārakhitāsa	A. 1
7	8	i	gu	Phaguyaśasa	A. 5, 1. la
8	8	ii	go	Sagotraṇa	E. 1. 1
9	8	iii	go	Gotīputasa	A. 9, 1.2
10	9	i	gho	Poṭhaghoshena	A. 2, 1.3
11	9	ii	gho	Dhamaghoshaye	A. 4, 1.2
12	10	i	cha	Pachajvala...	C. 1. 4
13	11	i	chhi	Kochhiye	A. 2, 1.3
14	11	ii	chhī	Vachhīputrasa	A. 1
15	12	i	jā	Pujāye	A. 2, 1.4
16	12	ii	jī	Jīvanādā...	A. 9, 1.2
17	15	i	ṭo	Paṭo	A. 5, 1. la
18	16	i	ṭha	Poṭhaghoshena	A. 2, 1.3
19	17	i	ḍa	Lavāḍasa	A. 8
20	17	ii	ḍā	Śoḍāsasa	D. 2, 1.2
21	17	iii	ḍā	Śoḍāsa	D. 1.11
22	19	i	ṇi	—Raṇi	E. 1.2
23	19	ii	ṇī	Pushkaraṇīnāṁ	E. 1.2
24	20	i	ta	Arahata	A. 2, 1.2
25	20	ii	ti	Hariti...	A. 2, 1.2
26	20	iii	to	Prīto	D. 1.9
27	21	i	tha	Pratithāpitā	A. 2, 1.3
28	22	i	da	Daśa	C. 1,4
29	22	ii	di	Divasa	A. 2, 1.2
30	22	iii	de	Devaḥ	D. 1.10
31	22	iv	do	Pāsādo	A. 1
32	22	v	do	Pāsādo	A. 4, 1.2
33	23	i	dha		
34	24	i	na	Nama	A. 2, 1.1
35	24	ii	na	Mahāsthāna	D. 1.7
36	24	iii	nā	Vasunā	D. 1.6
37	24	iv	ni	Vāsiniye	A. 4, 1.1

38	25	i	pa	Pachajvala ..	C. 1.4
39	25	ii	pā	Iṁdrapā	A. 9, 1.2
40	25	iii	pi	Shthāpito	D. 1.9
41	25	iv	pu	Pujāye	A. 2, 1.4
42	25	v	po	Poṭhaghoshena	A. 2, 1.3
43	26	i	pha	Phaguyaśāsa	A. 4, 1. la
44	28	i	bha	Bhayāye	A. 5, 1. lb
45	28	ii	bha	Bhagavatā	C. 1.2
46	28	iii	bha	Bhayāye	A. 2, 1.2
47	29	i	ma	Mahakshatrapasa	A. 2, 1.2
48	29	ii	mā	Vardhamānasa	A. 2, 1.1
49	29	iii	mi	Svāmisya	E. 1.1
50	29	iv	mo	Namo	A. 5, 1. la
51	29	v	mo	Amohiniye	A. 2, 1.3
52	30	i	ya	Kshaya	A. 7, 1.4
53	30	ii	yā	Bhayāye	A. 2, 1.2
54	30	iii	ye	Pujāye	A. 2, 1.4
55	31	i	ra	Arahata	A. 5, 1.2b
56	31	ii	ri	Haritiputrasa	A. 2, 1.3
57	31	iii	re	Savatsare	A. 2, 1.2
58	31	iv	ra	Toraṇaṁ	D. 1.4
59	32	i	la	Śaila	C. 1.4
60	32	ii	laṁ	Laṁ	D. 1.8
61	33	i	la		
62	34	i	va	Vachhīputrasa	
63	34	ii	va	Āyavati	A. 2, 1.4
64	34	iii	va	Vasunā	D. 1.6
65	34	iv	va	Vasya	D. 1.7
66	34	v	vāḥ	Devāḥ	D. 1.10
67	34	vi	va	Śivayaśā	A. 5, 1.2
68	34	vii	vi	Sāvikāye	A. 2, 1.2
69	35	i	śi	Śivayaśā	A. 5, 1.2a
70	35	ii	śo	Śoḍāsasa	A. 2, 1.2
71	35	iii	śai	Śaila	C. 1.4
72	36	i	she	Poṭhaghoshena	A. 2, 1.3
73	36	ii	shā	Imāshā	E. 1.2
74	37	i	sa	Putrasa	A. 9, 1.2
75	37	ii	sa	Natakasa	A. 5, 1 2 a
76	37	iii	su	Vasunā	D. 1,6
77	37	iv	si	Vāsiniye	A. 4, 1.1
78	37	v	se	Senasya	A. 4, 1.1
79	38	i	ha	Maha...	C. 1.1
80	38	ii	hi	Amohiniye	A. 2, 1.3
81	38	iii	he	Hemata	A. 2, 1.2
82	39	i	ksha	Kshatrapasa	A. 2, 1.2
83	39	ii	gra	Śegrava	E. 1.1
84	39	iii	jva	Pachajvala...	C. 1.4
85	39	iv	tra	Putrasa	A. 2, 1.2
86	39	v	ṭṭo	Paṭṭo	E. 1.3
87	39	vi	tsa	Savatsare	A. 2, 1.2
88	39	vii	dra	Iṁdrapā...	A. 9, 1.2
89	40	i	prā	Prāya	A. 2, 1.3
90	40	ii	prī	Prīto	D. 1.9
91	40	iii	brā	Brāhmaṇena	E. 1.1
92	40	iv	rchha	Ārchha	C. 1.4
93	40	v	rta	Saṁvarta	D. 1.12

94	4o	vi	rdha	Vardhamānasa	A. 2, 1.1
95	40	vii	rya	Aryavati	A. 2, 1.3
96	41	i	vri	Vṛi[sh]ṇe	C. 1.2
97	41	ii	śchi	Paśchimā	E. 1.2
98	41	iii	shka	Pushkaraṇī	E. 1.2
99	41	iv	shṭhā	Shṭhāpito	D. 1.9
100	41	v	sta	Staṁbho	D. 1.2
101	41	vi	sthā	Mahāsthāna	D. 1.7
102	41	vii	sva	Svamisa	A. 2, 1.2
103	42	v	svā	Svāmisya	D. 1.10
104	42	vi	sya	Vasya	D. 1.7.
105	42	vii	hma	Brāhmaṇena	E. 1.1
106	42	i	2	—	A. 2, 1.2
107	42	ii	9(?)	—	A. 2, 1.2
108	42	iii	70	—	A. 2, 1.2

Explanation of Table XVIII. Plate IV

Pre-Kushāṇa Inscriptions of Mathurā

Ref : A=Mathurā Inscription : the year 299, *IA*. Vol. 37 pl. facing p. 66;

B=Mathurā Inscription of (Dhru) vamitra, *EI*. Vol. X. Plate I facing page 107. no. 1.

C=Ganesahara Inscription of Ghaṭaka, *ASI(AR)* 1911-12, Pl. LVIII. no. 17.

D=Mathurā Jain Inscriptions (New Series) nos. 30-32, *EI*. Vol. II.

E=Stone Bowl Inscription from Mathurā, *EI*. Vol. XIX. plate facing page 67. no. VI.

1	1	i	a	Arahaṁtānaṁ	D. 30, line 1
2	1	ii	a	Ayalasa	E. 1, first half.
3	1	iii	ā	Āyāgapāto	D. 30, 1.2
4	1	iv	ā	Ārahātana	A. 1.1
5	2	i	i	Idrasama	E. 1.1, first half.
6	3	i	u	Ujhatikāye	A. 1.3
7	4	i	e	Ete	A. 1.4
8	5	i	o	Okhārikāye	A. 1.3
9	5	ii	o	Okhāye	A. 1.3
10	6	i	ka	Vanikasa	D. 30, 1.1
11	6	ii	kạ	Ghaṭākasa	C. 1.1
12	6	iii	kā	Okhārikāye	A. 1.3
13	7	i	khā	Okhārikāye	A. 1.3
14	7	ii	khạ̄	Okhāye	A. 1.3
15	8	i	gī	Bhagīniy[e]	A. 1.3
16	9	i	gha	Ghaṭākasa	C. 1.1
17	9	ii	gha	...bughara...	B. 1.2
18	10	i	cha	Paṁchalīye	B. 1.3
19	10	ii	cha	Chaete	A. 1.4
20	12	i	ja	Rājatirājasya	A. 1.1
21	12	ii	jā	Pujāye	D. 30, 1.2
22	13	i	jha	Ujhatikāye	A. 1.3
23	15	i	ṭā	Ghaṭākasa	C. 1.1

24	15	ii	ṭo	Āyāgapāṭo	D. 30, 1.2
25	19	i	ṇa	Pautreṇa	B. 1.6
26	20	i	ta	Kshaharātasa	C. 1.1
27	20	ii	ti	Hāti	C. 1.9
28	20	iii	ti	Patitaḥ	C. 1.10
29	20	iv	tī	Patī	C. 1.2
30	20	v	to	Pratithāpito	D. 32, 1.2
31	20	vi	taḥ	Patitaḥ	C. 1.10
32	21	i	tha	Pratha[me]	B. 1.3
33	21	ii	thu	Thupa	C. 1.2
34	22	i	di	Divase	A. 1.2
35	22	ii	di	Sihanādikena	D. 30, 1.2
36	22	iii	dī	Śīvadīnesya	A. 1.4
37	23	i	dha	Śīdhanā	A. 1.1
38	23	ii	dhu	Vadhuye	D. 32, 1.1
39	24	i	na	Namo	D. 30, 1.1
40	24	ii	na	Nama	A. 1.1
41	24	iii	nā	Sihanādikena	D. 30, 1.2
42	24	iv	ni	Vanikasa	D. 30, 1.1
43	25	i	pa	Patī	C. 1.2
44	25	ii	paṁ	Paṁchāliye	B. 1.3
45	25	iii	pī	Sthāpīto	A. 1.4
46	25	iv	pu	Putasa	E. 1.1, fist half
47	25	v	pau	Pautreṇa	B. 1.6
48	27	i	bu	...bughara...	B. 1.2
49	27	ii	bu	Budhasa	E. 1.1, first half
50	28	i	bha	Bharayaśasa	D. 32, 1.1
51	28	ii	bha	Bhadranadisa	D. 32, 1.1
52	28	iii	bha	Bhaginīy[e]	A. 1.3
53	29	i	mi	Mitrasya	B. 1.5
54	29	ii	mo	Namo	D. 30, 1.1
55	30	i	ye	Ayalasa	E. 1.1, first half
56	30	ii	ye	Pujāye	E. 1.1
57	30	iii	ye	Paṁchālīye	B. 1.8
58	30	iv	ye	Okharikāye	A. 1.3
59	31	i	ra	Arahaṁtānaṁ	D. 30, 1.1
60	31	ii	rā	Kshaharātasa	C. 1.1
61	31	iii	rā	Rājatirājasya	A. 1.1, first ra
62	32	i	la	Ayalasa	E. 1.1, first half
63	32	ii	lī	Paṁchālīye	B. 1.8
64	34	i	ya	Śivagho	D. 31
65	34	ii	va	Vadhuye	D. 32. 1.1
66	34	iii	va	Divase	A. 1.2
67	34	iv	vā	Vānikasa	D. 30, 1.1
68	34	v	vi	Mahāvirāsya	A. 1.2
69	34	vi	vī	Bhargavī	B. 1.6
70	35	i	śi	Kośiki	D. 30, 1.1
71	35	ii	śī	Śīdha	A. 1.1
72	35	iii	śī	Śīrikasya	A. 1.4
73	35	iv	śau	Śau...	B. 1.6
74	37	i	sa	Kshaharātasa	C. 1.1
75	37	ii	se	Vase	B. 1.4
76	37	iii	si	Sihakasa	D. 30, 1.1
77	38	i	ha	Kshaharātasa	C. 1.1
78	38	ii	hā	Hāti	B. 1.9
79	38	iii	hā	Mahārājasya	A. 1.1

80	38	iv	haṁ	Arahaṁtānaṁ	D. 30, 1.1
81	39	i	ksha	Kshaharātasa	C. 1.1
82	39	ii	chchha	Savachchhara	A. 1.1
83	39	iii	tra	Mitrasya	B. 1.5
84	39	iv	dra	Bhadrayaśasa	D. 32, 1.1
85	39	v	dra	Idrasama	E. 1.1, first half
86	39	vi	pra	Pratha[me]	B. 1.3
87	40	i	prā	Prātim[a]	A. 1.2
88	40	ii	rga	Bhargavī	B. 1.6
89	40	iii	rya	Serya	A. 1.1
90	40	iv	rsha	Rsha	B. 1.3
91	40	v	sthi	Sthite	B. 1.11
92	40	vi	sthā	Sthāpit[o]	A. 1.4
93	41	i	sya	Mahārājasya	A. 1.1
94	41	ii	sya	Mahāvirasya	A. 1.2
95	41	iii	syā (?)	Mitrasya	B. 1.5
96	41	iv	ta	Ārahātana	A. 1.1, peculiar
97	41	v	sa	Sarvasīdhana	A. 1.1, peculiar
98	41	vi	sa	Savachchhara	A. 1.1, peculiar
99	42	ia	1	Divase 1	A. 1.2
100	42	ib	2	Mase 2	A. 1.2
101	42	ii	9	....	A. 1.2
102	42	iii	10	......	B. 1.4
103	42	iv	90	.. ..	A. 1.2
104	42	v	200	....	A. 1.2
105	42	vi	...	Punctuation mark.	

Explanation of Table XIX. Plate IV.

Pabhosā Cave Inscriptions

Ref : *EI.* Vol. II. 1. Plate facing p. 242
2. Plate facing p. 243

1	1	i	a	Adhichhatrāyā	2. line 1
2	2	i	ā	Āsāḍhasenena	1. 1.5
3	3	i	ū	Ūdākasạ	1. 1.6
4	6	i	kā	Kāritaṁ	2. 1.3
5	6	ii	kā	Sonakāyana	2. 1.1
6	8	i	ga	Vaṁgapālasya	2. 1.1
7	8	ii	go	Gopālī	1. 1.3
8	10	i	chha	Savachhare	1. 1.7
9	14	i	ño	Rāño	2. 1.1
10	18	i	ḍha	Āsāḍhasenena	1. 1.5
11	19	i	ṇa	Putreṇa	2. 1.3
12	19	ii	ṇī	Tevaṇī	2. 1.2
13	20	i	ti	Bahasati	1. 1.2
14	20	ii	tu	Mātulena	1. 1.3
15	20	iii	te	Tevaṇī	2. 1.2
16	22	i	da	Dasa	1. 1.6
17	22	ii	da	Vaihidarī	2. 1.3
18	23	i	dhi	Adhichhatrāyā	2. 1.1
19	24	i	na	Senena	1. 1.5
20	24	ii	na	Sonakāyana	2. 1.1
21	25	i	pa	Gopālīyā	1. 1.3
22	25	ii	pu	Puttrasya	2. 1.2

23	25	iii	pu	Putreṇa	2. 1.2
24	25	iv	pu	Putrasya	2. 1.1
25	27	i	ba	Bahasati	1. line 2
26	28	i	bhā	Bhāgavatasya	2. 1.2
27	29	i	mā	Mātulena	1. 1.3
28	29	ii	mi	Mitrasa	1. 1.2
29	30	i	yā	Kaśśapīyāna (?)	1. 1.7
30	30	ii	yā	Adhidhhatrāyā	2. 1.1
31	30	iii	yā	Gopālīyā	1. 1.3
32	31	i	rā	Rājña	1. 1.1
33	31	ii	rā	Rāño	2. 1.1
34	31	iii	ri	Kāritaṁ	2. 1.3
35	31	iv	ri	Vaihidarī	1. 1.4
36	32	i	la	Vaṁgapālasya	2. 1.1
37	32	ii	li	Gopālīyā	1. 1.3
38	32	iii	le	Lenaṁ	1. 1.5
39	34	i	vai	Vaihidarī	1. 1.4
40	34	ii	vaṁ	Vaṁgapāla	2 1.1
41	35	i	śo	Śonakāyā	2. 1.1
42	36	i	shā	Āshāḍha	2. 1.3
43	37	i	sa	Bahasati	1. 1.2
44	37	ii	sā	Āsāḍha	1. 1.5
45	38	i	ha	Bahasati	1. 1.2
46	38	ii	hi	Vaihidarī	1. 1.4
47	39	i	iña	Rājña	1. 1.1
48	39	ii	ttra	Puttrasa	1. 1.2
49	39	iii	ttra	Puttrasya	2. 1.2
50	39	iv	tra	Putreṇa	2. 1.2
51	40	i	sya	Putrasya	2. 1.2
52	40	ii	sya	Pālasya	2. 1.1

Explanation of Table XX. Plate IV

Bhārhut Gateway Inscription

Ref : *Mem. ASI*. No. 1.

1	1	i	ā	Āgarājusa	line 2
2	3	i	u	Upaṁṇa	1.4
3	6	i	kā	Kāritaṁ	1.3
4	8	i	gī	Gāgīputasa	1.1
5	8	ii	go	Gotiputasa	1.2
6	10	i	cha	Cha	1.4
7	11	i	chhi	Vāchhi	1.3
8	12	i	ju	Rajusa	1.2
9	12	ii	je	Raje	1.1
10	14	i	ño	Raño	1.1
11	19	i	ṇa	Upaṁṇa	1.4
12	20	i	te	Pauteṇa	1.2
13	20	ii	to	Toranā	1.3
14	22	i	de	Devasa	1.1
15	23	i	dha	Dhanabhūtina	1.3
16	24	i	naṁ	Suganaṁ	1.1
17	25	i	pu	Putena	1.3
18	25	ii	pau	Pauteṇa	1.2
19	28	i	bhū	Dhanabhūtina	1.3

20	29	i	ma	Kaṁmato	1.4
21	31	i	ra	Raje	1.1
22	31	ii	ri	Kāritaṁ	1.3
23	32	i	lā	Silā	1.4
24	34	i	vā	Vāchhi	1.3
25	34	ii	vi	Visadevasa	1.1
26	37	i	su	Suganaṁ	1.1
27	37	ii	si	Silā	1.4

Explanation of Table XXI. Plate IV.

Ayodhyā Inscription of Dhanadeva

Ref : Sircar, D. C., *SI.* Plate XI

1	6	i	ko	Kosal]ā]	1.1
2	6	ii	kau	Kauśiki	1.1
3	12	i	ji	Yājinaḥ	1.1
4	19	i	ṇa	Putreṇa	1.1
5	20	i	ta	Ketanaṁ	1.2
6	20	ii	teḥ	Senāpateḥ	1.1
7	22	i	de	Devasya	1.2
8	23	i	dhi	Dhipena	1.1
9	24	i	na	Dhipena	1.1
10	24	ii	naḥ	Yājinaḥ	1.1
11	25	i	pi	Pituḥ	1.2
12	25	ii	pu	Putreṇa	1.1
13	25	iii	pe	Dhipena	1.1
14	26	i	pha	Phalgudevasya	1.2
15	29	i	me	Medha	1.1
16	30	i	ya	Yājinaḥ	1.1
17	31	i	ra	Dvira	1.1
18	32	i	la	Kosal[ā]	1.1
19	34	i	va	Devasya	1.2
20	35	i	śi	Kauśiki	1.1
21	36	i	sha	Shashṭhena	1.1
22	37	i	sa	Kosal[ā]	1.1
23	39	i	jñā	Rajñā	1.1
24	39	ii	tre	Putreṇa	1.2
25	39	iii	dvi	Dviraśva	1.1
26	40	i	rma	Dharma	1.2
27	40	ii	lgu	Phalgu	1.2
28	40	iii	śva	Dviraśva	1.1
29	41	i	shṭha	Shashṭhena	1.1
30	41	ii	shya	Pushya	1.1
31	41	iii	sya	Mitrasya	1.1

Explanation of Table XXII. Plate IV.

Bodh-Gayā Railing Inscriptions

Ref : Cunningham, *Mahābodhi,* Plate X.

1	1	i	a	Amoghāsā	no. 2
2	1	ii	a	Ayāye	no. 7
3	2	i	iṁ	Iṁdrāgi	no. 9

4	2	ii	iṁ	Iṁdrāgi	no. 10
5	6	i	ku	Kuraṁgiye	no. 7
6	7	i	khi	Rakhitasa	no. 3
7	8	i	gi	Kuragiye	no. 10
8	9	i	ghā	Amoghāsā	no. 2
9	10	i	che	Chetikāsa	no. 10
10	11	i	chha	Chha	no. 1
11	12	i	jā	Pājāvatiye	no. 10
12	12	ii	ji	Jivāputrāye	no. 9
13	15	i	ṭa	Ṭa	no. 1
14	20	i	ti	Pājāvatiye	no. 10
15	22	i	dā	Dānaṁ	no. 7
16	23	i	dhi	Bodhi	no. 3
17	24	i	naṁ	Dānaṁ	no. 7
18	25	i	pā	Pājāvatiye	no. 10
19	25	ii	pu	Putrāye	no. 10
20	27	i	bo	Bodhi	no. 3
21	29	i	mi	Iṁdrāgimitrāsa	no. 9
22	29	ii	mo	Amoghāsā	no. 2
23	30	i	yā	Ayāye	no. 4
24	30	ii	ye	Kuragiye	no. 4
25	31	i	raṁ	Kuraṁgiye	no. 7
26	34	i	vā	Jivāputrāye	no. 9
27	34	ii	vā	Pājāvatiye	no. 10
28	37	i	sa	Mitrasa	no. 10
29	39	i	trā	Putrāye	no. 10
30	39	ii	drā	Iṁdrāgimitrāsa	no. 9

Explanation of Plate IV A.

Hāthīgumphā Inscription of Khāravela

Ref : Sircar, D. C., *SI*. Pls. XXXVII (Left=L) & XXXVIII.
(Right=R)

1	1	i	a	Arahantāna	L. 1.1
2	1	ii	a	Abhisita	L. 1.3
3	2	i	u	Upitena	R. 1.1
4	2	ii	u	Usava	L. 1.5
5	3	i	e	Etina	L. 1.8
6	4	i	ai	Aireṇa	L. 1.1
7	5	i	o	Oghāṭitam	L. 1.6
8	6	i	ka	Kalingā	R. 1.1
9	6	ii	kā	Kīḍikā	L. 1.2
10	6	iii	kī	Kīdikā	L. 1.2
11	7	i	kha	Lakhanena	R. 1.1
12	7	ii	khā	Sankhāra	L. 1.3
13	7	iii	khi	Khibīra	R. 1.3
14	8	i	gā	Kalingā	R. 1.1
15	8	ii	gī	Gīta	L. 1.5
16	8	iii	gu	Guṇa	R. 1.1
17	8	iv	go	Gopura	L. 1.3
18	9	i	gha	Megha	L. 1.1
19	10	i	cha	Pāḍiyocha	R. 1.3
20	10	ii	che	Chetirāja	L. 1.1
21	11	i	chhi	Pachhima	L. 1.4
22	12	i	ja	Chetirāja	L. 1.1

23	12	ii	je	Rājena	L. 1.1	51	22	iii	pu	Gopura	L. 1.3
24	13	i	ṭā	Vāṭā	L. 1.6	52	22	iv	paṁ(?)	Paṁdarasa	L. 1.2
25	13	ii	ṭi	Paṭisankhāra	L. 1.3	53	23	i	bī	Khibīra	R. 1.3
26	13	iii	ṭi	Oghāṭitaṁ	L. 1.6	54	23	ii	bu	Budhoda	L. 1.5
27	14	i	ṭha	Luṭhaṇa	R. 1.1	55	23	iii	be	Kanhabeṇa	R. 1.4
28	15	i	ḍā	Kaḍāra	L. 1.2	56	23	iv	baṁ	Bandhāpayati	R. 1.3
29	15	ii	ḍi	Kīḍikā	L. 1.2	57	24	i	bha	Subha	R. 1.1
30	16	i	ṇa	Guṇa	R. 1.1	58	24	ii	bhi	Abhisita	L. 1.3
31	16	ii	ṇa	Gaṇanā	L. 1.2	59	25	i	ma	Pachhima	L. 1.4
32	17	i	ta	Abhisita	L. 1.3	60	25	ii	ma	Matocha	L. 1.3
33	17	ii	ti	Kārayati	L. 1.4	61	25	iii	mo	Namo (II)	L. 1.1
34	17	iii	ti	Vandāpayati	L. 1.6	62	25	iv	mo	Namo (I)	L. 1.1
35	17	iv	te	Upitena	R. 1.1	63	26	i	ya	Kārayati	L. 1.4
36	17	v	to	Matocha	L. 1 3	64	26	ii	yu	Yuge	L. 1.3
37	18	i	tha	Pasatha	L. 1.1	65	26	iii	yo	Pādiyo	R. 1.3
38	18	ii	the	Chavuthe	L. 1.5	66	26	iv	yo	Yovaraja	L. 1.2
39	18	iii	thī	Hathī	L. 1.13	67	27	i	rā	Mahārājena	L. 1.1
40	19	i	da	Budhoda	L. 1.5	68	27	ii	ri	Siri	L. 1.2
41	19	ii	da	Pandarasa	L. 1.2	69	27	iii	rī	Sarīra	L. 1.2
42	19	iii	dā	Vadātena	L. 1.2	70	27	iv	re	Aireṇa	L. 1.1
43	20	i	dhā	Sidhānaṁ	L. 1.1	71	28	i	la	Lakhanena	R. 1.1
44	20	ii	dhi	Vidhi	L. 1.2	72	28	ii	li	Kalingā	R. 1.1
45	20	iii	dho	Budhoda	L. 1.5	73	28	iii	lu	Luṭhaṇa	R. 1.1
46	21	i	na	Nagariṁ	L. 1.5	74	29	i	va	Savasidhānaṁ	L. 1.1
47	21	ii	na	Namo	L. 1.1	75	29	ii	va	Vase	L. 1.3
48	21	iii	ni	Sātakaṁniṁ	L. 1.4	76	29	iii	vi	Vidhi	L. 1.2
49	22	i	pa	Pasatha	L. 1.1	77	29	iv	ve	Pavesayati	R. 1.6
50	22	ii	pā	Pāde	L. 1.12	78	30	i	sa	Savasidhānaṁ	L. 1.1

79	30	ii	si	Savasidhānaṁ	L. 1.1
80	30	iii	sī	Sīri	L. 1.2
81	30	iv	su	Subha	R. 1.1
82	31	i	hā	Mahā	L. 1.1
83	31	ii	haṁ	Arahaṁ	L. 1.1
84	32	i	nha	Kanha	R. 1.4

Explanation of Table XIII. Plate V.

Mathurā Inscriptions of Kanishka years 5-23

References :

A. Mat Statue Inscription of Kanishka. *ASI*(*AR*) 1911-12, pl. LIII.

B. Inscription of Kanishka : year 5. *EI*. I. 381. no. 1.

C. Inscription of Kanishka : year 7. *EI*. I. 391. no. 19.

D. Inscription of Kanishka : year 8. *EI*. XVII. 10.

E. Inscription of Kanishka : year 9. *IA*. XXXIII. 37, no. 6. plate on *ASI*(*AR*). III p. 31 no. 4.

F. Dura Inscription of Kanishka : year 16. *EI*. XXXV. pp. 190-99 and Plate.

G. Curzon Museum Inscription of Kanishka : year 23. *EI*. XXVIII. 44 & plate.

1	1	i	a	Aryya	C. line 1
2	1	ii	a	Asya	D. line 2
3	4	i	e	Etasya	C. line 1
4	4	ii	e	Etasya	G. line 1
5	6	i	ki	Kiyāto	C. line 1
6	6	ii	ku	Kulāto	C. line 2
7	7	i	khu	Khuḍāye	B. Sec. A. line 2
8	8	i	ga	Nāgabhuti	C. line 8
9	8	ii	go	Goshtha	C. line 2
10	8	iii	gu	Gutasya	G. line 1
11	8	iv	ga	Bhagavataḥ	D. line 2
12	10	i	cha	Saḍhachari	B. Sec. A. line 2
13	10	ii	che	...chenāgarito	B. Sec. A. line 2
14	10	iii	cha	Cha	D. line 2
15	11	i	chha	Chhare	F. line 2
16	12	i	ja	Mahāraja	C. line 1
17	12	ii	jā	Rajātiraja	C. line 1
18	17	i	ḍa	Khuḍ[ā]ye	B. Sec. A. line 2
19	18	i	ḍha	Saḍhachari	B. Sec. A. line 2
20	19	i	ṇā	Gaṇāto	B. Sec. A. line 1
21	19	ii	ṇi	Kaṇishkasya	C. line 1
22	20	i	to	Koliyāto	B. Sec. A. line 1
23	20	ii	to	Gaṇāto	C. line 2
24	20	iii	ti	Nāgabhuti	C. line 2
25	21	i	ṭhi	Sethi	B. Sec. A. line 2
26	22	i	di	Di	B. Sec. A. line 1
27	22	ii	de	Devaputrasya	B. Sec. A. line 1
28	22	iii	di	Di	D. line 1
29	23	i	dhi	Dhitā	B. Sec. B. line 1

30	24	i	na	Senasya	B. Sec. A. line 2
31	25	i	pu	Devaputrasya	B. Sec. A. line 1
32	25	ii	pū	Pūrvva	B. Sec. A. line 1
33	27	i	ba	Bahma	B. Sec. A. line 1
34	28	i	bha	Bhagavataḥ	D. line 2
35	28	ii	bhu	Nāgabhuti	C. line
36	29	i	ma	Mahāraja	A.
37	29	ii	ma	Mahāraja	C. line 1
38	29	iii	mā	Māsya	G. line 2
39	30	i	ya	Pūrvvaya	B. Sec. A. line 1
40	31	i	rā	Mahāraja	C. line 1
41	32	i	lā	Kulāto	B. Sec. A. line 2
42	32	ii	lā	Kulāto	C. line 2
43	33	i	ḷi	Koḷiyāto	B. Sec. A. line 2
44	34	i	va	Deva	A.
45	35	i	śā	Śākhāto	B. Sec. A. line 2
46	35	ii	śi	Śishyo	C. line 2
47	36	i	sha	Shāhi	C. line 1
48	37	i	sa	Sa[ṁ]	B. Sec. A line 1
49	37	ii	saṁ	Saṁ	C. line 1
50	38	i	he	He	B. Sec. A. line 1
51	38	ii	hā	Mahāraja	A.
52	38	iii	hi	Shāhi	C. line 1
53	39	i	gṛi	Gṛi	G. line 1
54	39	ii	tro	Putro	A.
55	39	iii	tra	Devaputrasya	B. Sec. A. line 1
56	39	iv	ryya	Aryya	C. line 1
57	39	v	ryya	Pūrvva	B. Sec. 1 line 1
58	40	i	shya	Śishya	C. line 2
59	40	ii	shtha	Goshtha	C. line 2
60	40	iii	shko	Kanishko	A.
61	40	iv	sya	Mahārājasya	D. line 2
62	40	v	sya	Etasya	B. Sec. A. line 1
63	41	i	sya	Mahārasya	G. line 1
64	41	ii	hma	Bahma	B. Sec. A. line 1
65	41	iii	kkha	Kaṇikkha	D. line 1
66	41	iv	kshi	Pukshiriṇī	D. line 2
67	41	v	gṛi	Gṛi	D. line 1
68	42	i	sya	Devaputrasya	G. line 1
69	43	i	3	... .	D. line 1
70	43	ii	5	....	B. Sec. A. line 1
71	43	iii	5	....	C. line 1
72	43	iv	6	....	F. line 2
73	43	v	7	....	C. line 1
74	44	i	10	....	C. line 1
75	44	ii	10	....	F. line 2
76	44	iii	20	....	G. line 1
77	44	iv	4	....	D. line 1
78	44	v	8	....	D. line 1

Explanation of Table XXIV. Plate V

Inscriptions of Vasishka and Huvishka years 24–60

References :

A. Mathurā Inscription of Vasishka : year 24 Lüder. *MI.* no. 94. pp. 125-26 pl. on p. 295.

B. Sāñchī Inscription of Vasushka : year 28. *EI.* II. 369. plate facing p. 318.

C. Mathurā Inscription of Huvishka : year 28. *SI.* pp. 151-52 pl. XXVIII.

D. „ „ „ : year 29. *EI.* I. 385. no. 6

E. „ „ „ : year 39. *EI.* XIX. 66. no. 2

F. „ „ „ : year 44. *EI.* I. 387. no. 9

G. Lucknow Museum Inscription of Huvishka : year. 48. *EI.* X. 112 no. 5

H. Mathurā Inscription of Huvishka : year 50. *IA.* 219 no. 11

I. „ „ „ : year 51. *EI.* X. 113 no. 6

J. Mathura Inscription of Huvishka : year 58. *EI*. X. 114 no. 7

K. „ „ „ : year 60. *EI.* I. 386. no. 8

L. „ „ „ : *EI.* II. 206. no. 25

M. „ „ „ : *EI.* II. 206. n, 26

1	1	i	a	Asya	D. Sec. A.
2	1	ii	a	Ashtapana	J. line 1
3	3	i	u	Upadhyāyasya	I. line 2
4	4	i	e	Etasya	E. line 1
5	4	ii	e	Ekunato	M. Sec. A. line 1
6	6	i	kī	Sthānikīye	K. Sec. A.
7	6	ii	ku	Kuṭubiniye	D. Sec. B.
8	6	iii	ke	Mādhurike	B. line 2
9	7	i	kha	Kharasya	B. line 2
10	7	ii	khā	Śākhāya	K. Sec. A.
11	7	iii	khi	Sukhitāye	D. Sec. A.
12	7	iv	kho	Dukho	I. line 3
13	8	i	ga	Hagana	J. line 2
14	8	ii	ga	Bhāgava... ..	B. line 1
15	9	i	gha	Saghadāsasya	I. line 2
16	10	i	cha	Vāchakasya	K. Sec. A.
17	11	i	chhā	Chhāyā	B. line 2
18	12	i	ja	Rājasya	G. line 1
19	15	i	ṭi	Proṭima	G. line 2
20	15	ii	ṭu	Kuṭubiniye	D. Sec. B
21	18	i	ḍhi	Dhīye	F. Sec. B
22	18	ii	ḍhī	Kaḍhī	J. line 2

23	19	i	ṇe	Kshuṇe	D. Sec. A
24	20	i	ṭi	Pṛatithāpito	E. line 2
25	21	i	thā	Pratithāpito	E. line 2
26	22	i	da	Davaputrasya	I. line 1
27	22	ii	de	Devaputra	K. Sec. A.
28	23	i	dha	Dharmadeva	B. line 2
29	23	ii	dhi	Dhitara	D. Sec. A
30	23	iii	dhi	Dhiture	B. line 2
31	24	i	na	Nagadasya	M. Sec. D. line 2
32	24	ii	ni	Kuṭubiniye	D. Sec. B.
33	25	i	pi	Pratishṭāpito	I. line 2
34	25	ii	pu	Devaputrasya	I. line 1
35	25	iii	pū	Pūrvva	K. Sec. A.
36	27	i	bi	Kuṭubiniye	D. Sec. B.
37	27	ii	bū	Būdhadevāyaṁ	E. line 2
38	27	iii	bo	Bodhi	D. Sec. A.
39	28	i	bhā	Bhāgava......	B. line 1
40	28	ii	bho	Bhogatāya	K. Sec. B.
41	29	i	ma	Mahārāja	D. Sec. A.
42	29	ii	mā	Vardhamānasa	D. Sec.A.
43	29	iii	mi	Pushyamitriye	D. Sec. B.
44	30	i	yā	Chhāyā	B. line 2
45	30	ii	ye	Hāthiniye	B. line 1
46	31	i	rā	Rājasya	G. line 1
47	31	ii	ri	Mādhurike	B. line 2
48	32	i	le	Kule	J. line 2
49	33	i	li	Koḷiye	K. Sec. A
50	34	i	vi	Huvishkasya	L.
51	34	ii	vi	Vihāre	B. line 2
52	35	i	śā	Śākhāya	K. Sec. A.
53	35	ii	śi	Śisya	K. Sec. B.
54	36	i	sha	Nnṛishabhaśri	K. Sec. B.
55	37	i	su	Sukhitāye	D. Sec. A.
56	38	i	hā	Vihāre	B. line 2
57	38	ii	hu	Huvakshasya	G. line 1
58	39	i	ksha	Huvakshasya	G line 1
59	39	ii	gra	Grahaḥ	D. Sec. A.
60	39	iii	tvo	Bodhisatvo	G. line 2
61	39	iv	ddha	Vṛiddha	K. Sec. A.
62	39	v	nnṛi	Nnṛishabhaśrī	K. Sec. B.
63	39	vi	prī	Prīyatā	K. Sec. B.
64	39	vii	pro	Proṭima	G. line 1
65	40	i	mbū	Jambu	B. line 2
66	40	ii	vṛi	Vṛiddha	K. Sec. A.
67	40	iii	rva	Purva	E. line 1
68	40	iv	rtha	Sukhārtha	I. line 3
69	40	v	śrī	Nnṛishabhaśrī	K. Sec. B.
70	40	vi	shka	Huveshkasya	I. line 1
71	40	vii	shṭā	Pratishṭā	I. line 2
72	41	i	sya	......syadeva	M. Sec. D. line 1
73	41	ii	sya	Huvishkasya	H.
74	41	iii	sya	Etasya	E. line 1
75	43	i	1	....	I. line 1
76	43	ii	2	......:	G. line 1
77	43	iii	3	....	
78	43	iva	4	....	K. Sec. A.

79	43	ivb	4	....	A. line 3
80	43	v	5	....	E. line 1
81	43	vi	7	....	G. line 1
82	43	viia	8	....	B. line 1
83	43	viib	8	....	G. line 1
84	44	i	9	....	E. line 1
85	44	ia	9	....	D. Sec. A.
86	44	iia	10	....	G. line 1
87	44	iib	10	....	K. Sec. A.
88	44	iiia	20	....	D. line 1
89	44	iiib	20	....	D. Sec. A.
90	44	iva	30	... .	E. line 1
91	44	ivb	30	....	D. Sec. A.
92	44	va	40	....	F. Sec. A.
93	44	vb	40	....	G. line 1
94	44	vi	50	....	I. line 1
95	44	vii	60	....	K. Sec. A.

Explanation of Table XXV. Plate V.

Inscriptions of Vāsudeva : years. 64-63

References :

A. Inscription of Vāsudeva : year 64 (67?). *EI*, XXX, 183-84,

B. Inscription of year 74. *EI*, IX. 242.

C. Mathurā inscription of year 74, *JRAS*, V, 183. no. 4.

D. Inscription of year 80. *EI*, I, 392. no. 24

E. Mathurā inscription of year 83, *JRAS*, V. p. 184. no. 6.

1	1	i	a	Asya	B. line 5
2	4	i	e	Etasya	D. line 1
3	6	i	ka	Bhadrakasya	E. line 1
4	9	i	gha	Saṁgha	D. line 2
5	10	i	cha	Cha	E. line 2
6	12	i	jā	Maharajāsya	B. line 1
7	20	i	ta	Etasya	E. line 1
8	21	i	tha	Prathame	B. line 4
9	22	i	da	Daṇḍa	B. line 6
10	22	ii	de	Devaputrasya	B. line 2
11	22	iii	di	Divase	B. line 4
12	23	i	dhi	Dhitu	D. line 2
13	24	i	na	Linasya	B. line 8
14	25	i	pu	Putrasya	B. line 2
15	27	i	ba	Balasya	D. line 2
16	29	i	ma	Maharajāsya	B. line 1
17	30	i	yaṁ	Purvyayaṁ	B. line 5
18	30	ii	yāṁ	Pūrvāyāṁ	D. line 1
19	31	i	ra	Maharajāsya	B. line 1
20	32	i	la	Talakiye	B. line 6
21	32	ii	li	Linasya	B. line 8
22	34	i	va	Devaputrasya	B. line 2
23	35	i	śa	Triśa	B. line 5
24	37	i	su	Vāsu......	B. line 2
25	37	ii	se	Se	B. line 4

26	38	i	ha	Maharajāsya	B. iine 1
27	39	i	tra	Putrasya	B. line 2
28	39	ii	ṇḍa	Daṇḍa	B. line 6
29	39	iii	pra	Prathame	B. line 4
30	39	iv	rsha	Varsha	B. line 3
31	40	i	dvi	Dviti	A. line 1
32	40	ii	rvva	Purvvaya	B. line 5
33	40	iii	tro	Putro	E. line 2
34	40	iv	rtha	Pūjārtha	E. line 5
35	41	i	gṛi	Gṛi	E. line 1
36	41	ii	sya	Maharajāsya	B. line 1
37	41	iii	sya	Asya	C. line 5
38	42	iii	8	....	
39	42	iv	60	....	E. line 1
40	43	i	4	....	B. line 3
41	43	ii	6	....	E. line 1
42	43	iii	10	....	D. line 1
43	43	iv	10	....	E. line 1
44	44	i	30	....	B. line 5
45	44	ii	70	....	B. line 3
46	44	iii	80	....	E. line 1
47	44	iv	80	....	D. line 1

Explanation of Table XXVI. Plate V.

Private Inscriptions of years 4-22

References :

A. Inscription of year 4. *IA*, XXXIII. 33. no. 1. pl. *SI*, II. 201. no. 11

B. Inscription of year 5. *IA*, XXXIII. 33. no. 2. pl. oṇ *EI*, II. 201. no. 12

C. Inscription of year 9. *EI*, X. 110. no. 3

D. Inscription of year 18. *EI*, XIII. no. IV,

E. Inscription of year 15. *EI*, I. 383. no. 2

E. Inscription of year 18. *EI*, II. 202. no. 13

G. Inscription of year 18. *EI*, II. 202. no. 14

H. Inscription of year 19. *EI*, I. 382-83. no. 3

I. Inscription of year 20. *EI*, I. 395. no. 29

J. Inscription of year 20. *EI*, 395. no. 28

K. Inscription of year 20. *EI*, 383. no. 4

L. Inscription of year 22. *EI*, I. 391. no. 20

1	1	i	a	Arahatānaṁ	I. Sec. B.
2	1	ii	a	Aryya	D. line 2
3	1	iii	a	Aryya	I. Sec. A.
4	1	iv	ā	Āsyāṁ	F. Sec. A.
5	3	i	u	U	D. line 1lastletter
6	4	i	e	Etasya	D. line 1
7	6	i	ki	Kiyāto	A. Sec. A.
8	6	ii	ku	Kulāto	F. Sec. B.
9	6	iii	ku	Kumāra	D. line 4

10	6	iv	ku	Kulāto	C. line 3
11	6	v	kọ	Koliyāto...	D. line 1
12	7	i	kho	Śākhāto	B.
13	7	ii	khā	Sukhāya	F. Sec. C, line 2
14	8	i	ga	Sabhogato	F. Sec. B.
15	9	i	gha	(o) ghasya	K. Sec. A, line 2
16	10	i	cha	Vāchakasya	H. line 2
17	10	ii	cha	C̣ha	J. Sec. B, line 2
18	10	iii	che	Chetena	A. Sec. A.
19	12	i	ja	Jayabhuti......	E. Sec. B, line 1
20	12	ii	ju	Vājuka	A. Sec. A.
21	15	i	ṭu	Kuṭubiṇiye	C. line 2
22	15	ii	ṭa	Cheṭena	A. Sec. C.
23	16	i	ṭha	Kuṭhabiṇiye	J. Sec. C.
24	17	i	ḍa	Ekraḍalasya	C. line 1
25	18	i	ḍha	Saḍhachari	A. Sec. B.
26	19	i	ṇā	Varaṇāto	L.
27	19	ii	ṇi	Gaṇi	F. Sec. B,
28	20	i	to	Koliyāto	C. line 2
29	21	i	thi	Sathi	A. Sec. B.
30	22	i	dā	Dānaṁ	I. Sec. B.
31	22	ii	di	Di	F. Sec. A.
32	22	iii	de	Deva	D. line 3
33	23	i	dhi	Ḋhitu	F. Sec. B
34	23	ii	dhū	Vadhū	K. Sec. B, line 1
35	24	i	na	Dinasya	I. Sec. A.
36	24	ii	ni	Vāhiniye	I. Sec. B.
37	24	iii	naṁ	Dānaṁ	I. Sec. B.
38	24	iv	naṁ	Śiśininaṁ	E. Sec.
39	25	i	pu	Puśya	A. Sec. B.
40	25	ii	pu	Pu[jāye]	J. Sec. C, line 3
41	27	i	baṁ	Baṁbhadāsiye	D. line 1
42	27	ii	bi	Kuṭhabiṇiye	J. Sec. B, line 2
43	28	i	bha	Bhagavato	G. Sec. B.
44	28	ii	bhu	Jayabhuti......	E. Sec. B, line 1
45	29	i	mi	Mitra	D. line 4
46	29	ii	mi	Mitrasya	A. Sec. B.
47	29	iii	mo	Namo	I. Sec. B.
48	30	i	yā	Koliyāto	C. line 2
49	30	ii	yā	Vachchhaliyā	F. Sec. B.
50	30	iii	ye	Śiriye	F. Sec. B.
51	31	i	ra	Vāraṇāto	L.
52	31	ii	ri	Garito	A. Sec. A.
53	31	iii	ru	Rudradeva	D. line 3
54	32	i	lo	Lohavāṇiyasya	K. Sec. B, line 1
55	32	ii	li	Vachchhaliyā	F. Sec. B.
56	33	i	ḷi	Koḷiyāto	C. line 2
57	33	ii	ḷi	Koḷiyāto	J. Sec. A
58	34	iii	ḷa	Haḷakiyāto	A. Sec. A.
59	34	i	va	Vaddha......	C. line 3
60	34	ii	vā	Vāhiniye	I. Sec. B.
61	34	iii	vi	Sāvikāna	D. line 3
62	35	i	śā	Śākhāto	B.
63	35	ii	śi	Śirśiniye	A. Sec. B.
64	37	i	sa	Sahā	A. Sec. C.
65	37	ii	su	Sukhāya	F. Sec. C, line 2

66	38	i	ha	Sihasya	J. Sec. B, line 1
67	38	ii	hā	Sihāye	A. Sec. B.
68	38	iii	he	He	C. line 1
69	38	iv	hi	Vāhiniye	I. Sec. B.
70	39	i	ṅga	Saṅga	E. Sec. C, line 1
71	39	ii	ṅgha	Saṅgha	J. Sec. B, line 1
72	39	iii	ṭṭi	Bhaṭṭi	E. Sec. B, line 2
73	39	iv	chchha	Vachchhaliyā	F. Sec. B.
74	39	v	tri	Matridinasya	I. Sec. A.
75	40	i	ryya	Aryya	I. Sec. A.
76	40	ii	dra	Rudradeva	D. line 3
77	40	iii	dri	Bhadrikā	E. Sec. D, line 2
78	40	iv	pra	Pratimā	L.
79	40	v	gṛi	Gṛiha	A. Sec. C.
80	41	i	gṛi	Gṛi	F, Sec. A,
81	41	ii	śya	Puśya	A. Sec. B,
82	41	iii	śrā	Śrāvikāye	J. Sec. C, line 1
83	41	iv	sya	Sya	B. in the begining
84	41	v	sya	Vāchakasya	I. Sec. A.
85	42	i	bra	Brahma	K. Sec. A.
86	42	ii	rddha	Varddhamānaṁ	J. Sec. C, line 3
87	42	iii		Visarga	I. Sec. B.
88	42	iv		Punctuation mark	I. Sec. A.
89	42	v		,, ,,	H. Sec. A, line 1
90	43	i	3	....	C. line 1
91	43	ii	4	....	D. line 1
92	43	iii	4	....	F. Sec. A.
93	43	iv	5	....	E. Sec. A, line 1
94	43	v	8	....	G. Sec. A. line
95	44	i	8	....	F. Sec. A,
96	44	ii	9	....	C, line 1
97	44	iii	10	....	C. line 1
98	44	iv	10	....	F. Sec. A.
99	44	v	20	....	A. Sec. A.

Explanation of Table XXVII. Plate V.

Private Inscriptions : years. 25–98

References :

A. Inscription of year 25. *EI*, I. 334 no. 5
B. Inscription of year 26. Lüders, *MI*, p. 62. pl. on p. 268
C. Inscription of year 28. *IA*, VI. 217. no. 1
D. Inscription of year 31. *EI*, II. 202. no. 15
E. Inscription of year 32. *EI*, II. 203. no. 16
F. Inscription of year 35. *EI*, I. 285. no. 7
G. Inscription of year 45. *EI*, I. 387. no. 10
H. Inscription of year 47. *EI*, I. 396. no. 30
I. Inscription of year 49. *EI*, II. 204. no. 20
J. Inscription of year 50. *EI*, II. 203. no. 17
K. Inscription of year 50. *EI*, II. 209. no. 36
L. Inscription of year 52. *EI*, II. 203. no. 18
M. Inscription of year 54. *EI*, I. 391. no. 21
N. Inscription of year 62. *EI*, II. 204. no. 19
O. Inscription of year 77. *JRAS*, V. 183. no. 2
P. Inscription of year 81. *EI*, II. 204. no. 21

Q. Inscription of year 86. *EI*, I. 388. no. 12
R. Inscription of year 87. *EI*, I. 388. no. 13
S. Inscription of year 90. *EI*, II. 205. no. 22
T. Inscription of year 92. *EI*, XXXIV. 11,
U. Inscription of year 93. *EI*, II. 205. no. 23
V. Inscription of year 95. *EI*, I. 392. no. 22
W. Inscription of year 98. *EI*, II. 205. no. 24

1	1	i	a	Ayabala	A. Sec. B, line 1
2	1	ii	a	Asya	D. Sec. A.
3	1	iii	a	Aryya	L. line 3
4	1	iv	a	Ante	P. line 1
5	1	v	a	Asya	T. line 1
6	2	i	i	Vairāto	F. Sec. B.
7	2	ii	i	Iti	B. line 1
8	2	iii	ī	Vaīrāyā	I. line 1
9	3	i	u	Uche	A. Sec. B, line 1
10	4	i	e	Etasya	P. line 1
11	4	ii	e	Etasya	N. line 1
12	6	i	ku	Kakuhasya	N. line 1
13	6	ii	ku	Kulāto	D. Sec. B, line 1
14	6	iii	ku	Kuṭumbiṇiye	D. Sec. B, line 1
15	6	iv	ku	Kulato	L. line 2
16	6	v	ko	Vāchako	L. line 3
17	7	i	khā	Śākhāyā	I. line 1
18	7	ii	kha	Śākhato	D, Sec. B. line 1
19	7	iii	khe	Mukhehi	B. line 6
20	8	i	gu	Mangu	L. line 3
21	8	ii	go	Goṭṭikasya	L. line 4
22	9	i	gha	Ghastu	L. line 2
23	10	i	cha	Vāchakasya	N. line 2
24	10	ii	che	Cherasya	J. line 2
25	12	i	jā	Pujāye	U. Sec. B, line 2
26	12	ii	jī	Jīvāye	P. line 1
27	13	i	jha	Majhamāto	S. line 2
28	15	i	ṭu	Ṭubaniye	S. line 1
29	16	i	ṭha	Ṭhaniyāto	V, line 1
30	18	i	ḍha	Shaḍhacharo	L, line 3
31	19	i	ṇa	Gaṇato	F. Sec. A.
32	19	ii	ṇa	Dāṇa	D. Sec. B, line 2
33	19	iii	ṇa	Ṇaka	L. line 4
34	19	iv	ṇe	Khuṇe	D. Sec. A
35	20	i	ta	Divitasya	L. line 3
36	20	ii	ta	Tasa	N. line 2
37	20	iii	to	Varato	D. Sec. B, line 1
38	20	iv	tī	Sarasvatī	M. line 6
39	21	i	tha	Pratha......	Li line D. 1
40	21	ii	thu	Thupe	I. Sec. B.
41	21	iii	thu	Māthuri	B. line 3
42	22	i	da	Pida	K. line 5
43	22	ii	dā	Dāsasya	D. Sec. B, line 2
44	22	iii	di	Di	D. Sec. A.
45	22	iv	di	Divasa	L. line 1
46	23	i	dhi	Dhitu	D. Sec. B, line 2
47	24	i	ni	Nivartanā	D. Sec. B, line 2
48	24	ii	nā	Vamānānaṁ	B. line 5

49	24	iii	naṁ	Yamānānaṁ	B. line 5
50	25	i	pi	Pida	K. line 5
51	25	ii	pu	Putrasya	L. line 4
52	25	iii	pū	Pūsha	J. line 5
53	25	iv	pū	Pūrvva	T. line 1
54	25	v	pe	Thupe	I. Sec. B.
55	27	i	ba	Balo	N. line 2
56	27	ii	bu	Buddhisya	D. Sec. B, line 2
57	28	i	bha	Bhatibala	S. line 2
58	28	ii	bhā	Bhāryya	I. Sec. B.
59	28	iii	bhi	Bhikshusya	T. line 2
60	29	i	ma	Śrama	L. line 3
61	29	ii	mā	Yamānānaṁ	B. line 5
62	29	iii	mu	Mukhehi	B. line 6
63	30	i	ya	Ayasa	Q. line 2
64	30	ii	ya	Pūrvyāya	I. Sec. A, line 1
65	30	iii	yā	Yāto	D. Sec. B, line 1
66	30	iv	yu	Yudhadinasya	J. line 3
67	31	i	rā	Vairāya	J. Sec. A, line 1
68	31	ii	re	Saṁvatsare	A. Sec. A.
69	31	iii	ro	Shaḍhacharo	L. line 3
70	32	i	la	Kulato	L, line 3
71	32	ii	lā	Śailā	B. line 4
72	32	iii	lo	Balo	N. line 2
73	33	i	ḷa	Koḷayāto	A. Sec. B.
74	33	ii	ḷi	Kaḷiyāto	M. line 2
75	33	iii	ḷi	Kaḷiyāto	L. line 2
76	34	i	va	Vaḍha......	K. line 5
77	34	ii	vi	Deyilasya	D. Sec. B, line 2
78	34	iii	vi	Panchaviśa	L line 1
79	34	iv	ve	Verāto	L. line 2
80	34	v	vo	Vodve	I. Sec. B.
81	35	i	śā	Śākhato	D. Sec. B, line 1
82	35	ii	śi	Śishyo	L. line 3
83	35	iii	śi	Śishya	R.
84	35	iv	śū	Śūrasya	B. line 3
85	35	v	śai	Śailā	B. line 4
86	36	i	sha	Pūsha	J. line 5
87	36	ii	sho	Śisho	N. line 1
88	37	i	sa	Tasa	N. line 2
89	37	ii	sa	Sa	D. Sec. A.
90	37	iii	sa	Divasa	M. line. 1
91	37	iv	sa	Savatsare	A. Sec. A.
92	38	i	ha	Hastisya	L. line 3
93	38	ii	ha	Gṛiha	P. line 2
94	38	iii	hā	Mahāvirasya	U. Sec. A.
95	38	iv	hi	Mahika	K. line 5
96	38	v	he	Hemaṁta	A. Sec. A.
97	39	i	dve	Vodve	I. Sec. B.
98	39	ii	dyā	Dyāpanā	L. line 1
99	39	iii	ndi	Nandi	I. Sec. A, line 2
100	39	iv	ndi	Nandi	R.
101	39	v	pña	Pñacha	A. Sec. A.
102	39	vi	ryya	Spāryya	L. line 3
103	39	vii	ryya	Spāryya	L. line 2

104	40	i	ryya	Aryya	D. Sec. B, line 1
105	40	ii	rvva	Pūrvva	I. Sec. A, line 1
106	40	iii	rvva	Sarvva	L. line 4
107	40	iv	vṛi	Vṛidha	I. Sec. A, line 2
108	40	v	mba	Kuṭumbiṇiye	D. Sec. B, line 1
109	40	vi	shṇā	Vishṇā	K. line 5
110	40	vii	kshu	Khuṇe	D. Sec. A.
111	41	i	sya	Dāsasya	D. Sec. B, line 2
112	41	ii	sya	Etasya	P. line 1
113	41	iii	sya	Mahāvirasya	U. Sec. A.
114	41	iv	sya	Cherasya	J. line 2
115	41	v	bhrā	Bhrātṛika	B. line 4
116	41	vi	śra	Śrama	L. line 3
117	41	vii	ndra	Nāgendra	B. line 2
118	42	i	ṭṭi	Goṭṭikasya	L. line 4
119	42	ii	tra	Putrasya	L. line 4
120	42	iii	rṇṇa	Dadhikarṇṇa	B. line 2
121	42	iv	stu	Stu	L. line 4 last letter
122	42	v	tṛi	Bhrātṛika	B. line 4
123	42	vii	90	…………	U. Sec. A.
124	42	viii	90	. ………	T. line 2
125	43	i	4	. ………	I. Sec. A, line 1
126	43	iia	5	………	L. line 1
127	43	iib	5	…………	N. line 1
128	43	iiia	6	… ……	Q. line 1
129	43	iiib	6	…………	P. line 2
130	43	iva	7	…………	H. line 1
131	43	ivb	7	.. ………	O.
132	43	v	9	…………	I. Sec. A, line 1
133	43	vi	10	…………	M. line 1
134	43	vii	10	…………	D. Sec. A.
135	44	ia	20	…………	L. line 1
136	44	ib	20	…………	I. Sec. A, line 1
137	44	ii	30	….. ……	D. Sec. A.
138	44	iiia	40	…………	I. Sec. A, line 1
139	44	iiib	40	…………	H. line 1
140	44	iva	50	…………	J. line 1
141	44	ivb	50	…………	M. line 1
142	44	v	60	……… …	N. line 1
143	44	vi	70	…………	O.
144	44	vii	80	…………	Q. line 1

Explanation of Table XXVIII. Plate V

Sanchi Inscription of Vaskusāna : year 22.

Reference : Marshall : *Monuments of Sāñchī*,
pl. CXXXVIII

1	8	i	ga	Bhagavato	line 1
2	10	i	cha	Cha	line 2
3	19	i	ṇa	Vaskushāṇasya	line 1
4	20	i	to	Bhagavato	line 1
5	22	i	di	Di	line 1
6	25	i	pi	Pratishṭāpitā	line 1
7	28	i	bha	Bhagavato	line 1

8	29	i	mi	Vidyamaṭiye	line 1
9	30	i	ye	Vidyamatiye	line 1
10	31	i	rā	Rājño	line 1
11	34	i	va	Vaskushāṇasya	line 1
12	35	i	śa	Śakk[ya]	line 1
13	36	i	shā	Vaskushāṇasya	line 1
14	37	i	sa	Sa	line 1
15	38	i	hi	Hita	line 2
16	39	i	kka	Śakk[ya]	line 1
17	39	ii	jño	Rajño	llne 1
18	40	i	dya	Vidyamatiye	line 1
19	40	ii	pra	Pratishṭāpitā	line 1
20	41	i	rvva	Sarvva	line 2
21	41	ii	shṭā	Pratishṭāpitā	line 1
22	42	i	sku	Vaskushāṇasya	line 1
23	42	ii	sya	Vaskushāṇasya	line 1
24	43	i	2	....	line 1
25	43	ii	10	....	line 1
26	44	i	20	....	line 1

Explanation of Table XXIX. Plate VI.

Sārnāth, Sahet-Mahet and Kosam Inscriptions of Kanishka.

References :

A. Kosam inscription of Kaṇishka : year 2. *EI*, II. 212.

B. Sārnāth inscription of Kaṇishka : year 3. *EI*, VIII. 176-79.

C. British Museum inscription of Kanishka : year 10. *EI*, IX. 240

D. Sahet-Mahet inscription of year 19. *EI*, VIII. 181

E. Sahet-Mahet umbrella staff inscription. *EI*, X. 291.

1	1	i	a	Ante	B. line 7
2	3	i	u	Upadhyāyā	B. line 6
3	4	i	e	Etaye	C. line 3
4	6	i	ka	Kaṇishkasya	A. line 1
5	6	ii	kā	Kāṇishkasya	C. line 2
6	6	iii	ko	Kosabiye	E. line 7
7	7	i	kha	Kharapallana	B. line 8
8	7	ii	khu	Bhikhuṇi	A. line 2
9	8	i	ga	Bhagavato	D. line 2
10	8	ii	ga	Bhagavato	D. line 2
11	10	i	cha	Chaṇḍaścha	E. line 6
12	10	ii	chaṁ	Chaṁkame	D. line 2
13	11	i	chha	Chhatraṁ	E. line 6
14	11	ii	chhā	Chhātraṁ	D. line 2
15	12	i	ja	Maharājasya	C. line 1
16	15	i	ṭi	Kuṭiye	D. line 3
17	19	i	ṇi	Kaṇishkasya	B. line 1
18	19	ii	ṇi	Bhikhuṇi	A. llne 2
19	19	iii	ṇi	Kaṇishkasya	B. line 1
20	20	i	ti	Bayati	A. line 2
21	20	ii	to	Bhagavato	A. line 2
22	22	i	di	Vādinaṁ	E. line 8
23	22	ii	de	Devi	C. line 5

24	22	iii	de	Devaputra	C. line 1
25	23	i	dhi	Bodhi	A. line 1
26	34	i	na	Navamikā	C. line 4
27	24	ii	na	Vanasparena	B. line 8
28	25	i	pu	Purvaye	C. line 3
29	27	i	bu	Buddhasa	A. line 2
30	27	ii	bo	Bodhi	B. line 4
31	27	iii	bo	Bodhi[sa]tvo	E. line 6
32	28	i	bhi	Bhikhuṇi	A. line 2
33	28	ii	bhi	Bhikshusya	B. line 2
34	28	iii	bha	Bhagavato	D. line 2
35	29	i	ma	Maharājasya	C. line 1
36	29	ii	me	Chaṁkame	D. line 2
37	30	i	ye	Etaye	C. line 3
38	30	ii	ye	......ye	B. l. 8 first letter
39	31	i	rā	Mahārāja	A. line 1
40	31	ii	ri	Vihārisya	D. line 2
41	32	i	la	Balasya	B. line 3
42	34	i	va	Bhagavato	A. line 2
43	34	ii	va	Devaputrasya	C. line 1
44	34	iii	vi	Devi	C. line 5
45	35	i	śā	Śāvastiye	E. line 1
46	36	i	shā	Parishāhi	B. line 6
47	37	i	si	Siddha	C. line 1
48	37	ii	saṁ	Kosaṁbakuṭiye	D. line 3
49	38	i	ha	Maharājasya	C. line 1
50	38	ii	hā	Vihārisya	D. line 2
51	39	i	kshu	Bhikshusya	D. line 1
52	39	ii	tre	Trepiṭakasya	D. line 2
53	39	iii	ṇḍa	Chaṇḍaścha	E. line 6
54	40	i	ddha	Buddhamitrā	A. line 2
55	40	ii	ddhye	Saddhye	D. line 2
56	40	iii	rttha	Sukhārttha	B. line 10
57	41	i	lla	Kharapalla	B. line 8
58	41	ii	ścha	Chaṇḍaścha	E. line 6
59	41	iii	shṭhā	Pratishṭhāpita	B. line 4
60	42	i	shka	Kāṇishkasya	C. line 2
61	42	ii	sya	Maharājasya	A. line 1
62	43	i	8	....	A. line 1
63	43	ii	9	....	C. line 3
64	43	iii	9	....	D. line 1
65	44	i	10	....	C. line 2
66	44	ii	10	....	D. line 1
67	44	iii	20	....	B. line 1

Explanation of Table XXX. Plate VI.

Inscriptions of the Kushāṇa Times

References :

A. Allahabad Museum Inscription of year 23.
EI, XXIV. 250-1.

B. Sārnāth Inscription of Aśvaghosha : year 40.
EI, VIII. 172.

C. *Prahlādpur* Pillar Inscription, Fleet, *CII*, III. 250.
pl. XXXVI. A.

1	1	i	a	Aśvaghosha	B.
2	2	i	i	Iha	C.
3	2	ii	i	Iva	C.
4	2	iii	i	Iti	A. line 16
5	3	i	u	Uchhṛitaḥ	A. line 1
6	5	i	o	Oghala	B. II, on the same plate
7	6	i	kī	Kīrtiḥ	C.
8	6	ii	kau	Kaubidāri	A. line 12
9	7	i	khe	Pakhe	B.
10	9	i	gho	Aśvaghosha	B.
11	9	ii	gho	Ghosha	B. II, on the same plate
12	10	i	cha	Chatariśe	B.
13	10	ii	cha	Paṁchamaṁ	A. line 3
14	11	i	cha	Savachhare	B.
15	12	i	ja	Vijaya	C.
16	19	i	ṇe	Mantriṇe	A. line 8
17	20	i	ta	Chatariśe	B.
18	20	ii	ti	Ti	A. line 10, first letter
19	21	i	tha	Prathama	A. line 4
20	22	i	da	Dasame	B. line 1
21	22	ii	dā	Dātveva	A. line 10
22	22	iii	di	Divase	B.
23	25	i	pā	Pālaḥ	C.
24	25	ii	pu	Vipula	C.
25	26	i	pha	Phalāḥ	A. line 13
26	27	i	bi	Kaubidāri	A. line 12
27	28	i	bho	Bhogya	A. line 14
28	29	i	ma	Paṁchamaṁ	A. line 3
29	29	ii	mu	Samuchhṛitaḥ	A. line 2
30	30	i	ya	Vijaya	C.
31	30	ii	yū	Yūpa	A. line 1
32	30	iii	yo	[Tṛitī]yo	A. line 1
33	31	i	rā	Rājño	A. line 9
34	31	ii	ri	Chatariśe	B.
35	32	i	la	Vipula	C.
36	32	ii	lāḥ	Phalāḥ	A. line 13
37	32	iii	lo	Lo	C. last letter.
38	34	i	vi	Vijaya	C.
39	34	ii	vīṁ	Vīṁśa	A. line 7
40	35	i	śi	……Śi……	C.
41	35	ii	śe	Viṁśe	A. line 7
42	36	i	sha	Ghosha	B.
43	37	i	sa	Samuchhṛitaḥ	A. line 2
44	37	ii	sa	Dasame	B.
45	37	iii	sa	Satata	C.
46	38	i	ha	Iha	C.
47	38	ii	he	Hemata	B.
48	39	i	kra	Krama	A. letter between the lines 4-5.

49	39	ii	kṛi	Kṛita	A. line 10
50	39	iii	kta	Bhoktavya	A. line 15
51	39	iv	ksha	Kshatrasa	C.
52	39	v	kshi	Dākshiṇāṁ	A. line 10
53	39	vi	gri	Agri	A. line 3
54	39	vii	gṛi	Gṛihya	A. line 12
55	39	viii	chhṛi	Uchhṛitaḥ	A. line 1
56	39	ix	jñā	Rājñā	A. line 6
57	40	i	jño	Rājño	A. line 9
58	40	ii	ñcha	Pañcha	C.
59	40	iii	tra	Chhatrasa	C.
60	40	iv	tkṛi	Tkṛitaḥ	A. line 16
61	40	v	dbhiḥ	Dbhiḥ	A. line 15, beginning of the line
62	40	vi	dya	Mādya	A. line 6
63	40	vii	nyū	Vanyū	A. line 5
64	40	viii	pta	Saptama	A. line 5
65	40	ix	pra	Prathame	A. line 4
66	41	i	prī	Prīti	A. line 16
67	41	ii	bhṛa	Bhṛita	A. line 14
68	41	iii	rtiḥ	Kirtiḥ	C.
69	41	iv	rtthaḥ	Hartthaḥ	C.
70	41	v	rtha	Chaturtha	A. line 2
71	41	vi	rthi	Pārthiva	C.
72	41	vii	ddha	Saddharma	C.
73	41	viii	rva	Sarva	A. line 14
74	41	ix	rma	Dharma	C.
75	42	i	rshe	Varshe	A. line 7
76	42	ii	vṛi	Vṛitaḥ	A. line 11
77	42	iii	śya	Aśvaghoshasya	B.
78	42	iv	śva	Maheśvara	A. line 16
79	42	v	śya	Praveśya	A. line 14
80	42	vi	śrī	Śrī	A. line 2
81	42	vii	shṭo	Agnishṭoma	A. line 3
82	42	viii	hya	Gṛihya	A. line 12
83	42	ix	sya	Aśvaghosasya	B.
84	43	i	1	....	A. line 8
85	43	ii	2	....	A. line 9
86	43	iii	3	....	A. line 10
87	43	iv	4	....	A. line 11
88	43	v	5	....	A. line 3
89	43	vi	6	....	A. line 4
90	43	vii	7	....	A. line 5
91	43	viii	8	....	A. line 6
92	43	ix	9	....	A. line 7

Explanation of Table XXXI. Plate VI.

Mathurā Inscriptions of Kanishka. (Eastern Style)

References : A. Inscription of Kanishka : year 4. *EI*, XXXIV. 10.

B. Inscription of Kanishka : year 14. *EI*, XIX. 97.

1	1	i	a	Asmiṁ	B. line 1
2	1	ii	a	Anena	A. line 2

3	1	iii	ā	Ācha	A. line 2
4	4	i	e	Etasya	A. line 1
5	6	i	ka	Kaṇi	B. line 1
6	8	i	ga	Bhagavato	B. line 2
7	9	i	ghi	Saṁghita	B. line 2
8	12	i	ja	Maharāja	B. line 1
9	12	ii	jā	Pūjārthaṁ	B. line 2
10	19	i	ṇi	Kaṇi	B. line 1
11	19	ii	ṇāṁ	Pitṛiṇāṁ	A. line 2
12	19	iii	ṇi	Kaṇishkasya	A. line 1
13	20	i	ta	Svamatasya	B. line 2
14	20	ii	ta	Etasya	A. line 1
15	20	iii	to	Bhagavato	B. line 2
16	22	i	di	Divasa	B. line 1
17	22	ii	du	Dukkha	B. line 3
18	22	iii	de	Deva	B. line 1
19	24	i	na	Parityāgena	A. line 2
20	25	i	pu	Putrasya	B. line 1
21	25	ii	pū	Pūjārthaṁ	B. line 2
22	25	iii	pau	Pausha	B. line 1
23	27	i	bu	Buddhaye	B. line 2
24	28	i	bha	Bh[ā]ryyā	B. line 2
25	28	ii	bha	Bhagavato	B. line 2
26	29	i	ma	Maharāja	B. line 1
27	29	ii	ma	Pitāmahasya	B. line 2
28	29	iii	ma	Mahārājasya	A. line 1
29	30	i	ya	Payati	B. line 3
30	30	ii	yaṁ	Purvvāyaṁ	A. line 1
31	31	i	rā	Maharāja	B. line 1
32	31	ii	rā	Mahārājasya	A. line 1
33	31	iii	ri	Vihārisya	A. line 1
34	31	iv	re	Savatsare	B. line 1
35	32	i	lā	Saṁghilā	B. line 2
36	34	i	va	Deva	B. line 1
37	34	ii	vi	Vihārisya	A. line 1
38	36	i	sha	Pausha	B. line 1
39	37	i	sa	Sarvva	B. line 1
40	37	ii	sa	Savatsare	B. line 1
41	37	iii	saṁ	Saṁghila	B. line 2
42	38	i	ha	Maharāja	B. line 1
43	38	ii	hā	Mahārājasya	A. line 1
44	38	iii	hā	Mahā	A. line 2
45	38	iv	hu	Hummiyaka	A. line 2
46	39	i	kkha	Dukkha	B. line 3
47	39	ii	ṇḍa	Daṇḍanāyaka	A. line 2
48	39	iii	tra	Putrasya	B. line 1
49	39	iv	tsa	Savatsare	B. line 1
50	40	i	ddha	Buddha	B. line 2
51	40	ii	ddhya	Sāddhya	A. line 1
52	40	iii	pra	Prahaṇārtthaṁ	B line 3
53	40	iv	rttha	Prahaṇārtthaṁ	B. line 3
54	41	i	ryyā	Bhāryyā	B. line 2
55	41	ii	rvva	Sarvva	B. line 2
56	41	iii	rvva	Purvvayaṁ	A. line 1
57	41	iv	shka	Kaṇishkasya	B. line 1
58	42	i	shṭhā	Pratishṭhā	B line 2

59	42	ii	smiṁ	Asmiṁ	B. line 1
60	42	iii	sya	Putrasy	B. line 1
61	42	iv	sya	Svamatasya	B. line 2
62	43	i	4	…………	B. line 1
63	43	ii	4	…………	A. line 1
64	43	iii	10	…………	B. line 1
65	43	iv	10	…………	A. line 1

Explanation of Table XXXII. Plate VI

Mrthurā Inscription of Huvishka : year. 33.

(Eastern Style)

References : *EI*. VIII. 182.

1	1	i	a	Ante......	line 1
2	6	i	ka	Trepiṭakasya	line 1
3	7	i	khu	Bhikhuṇiye	line 2
4	8	i	gi	Bhāgineyīye	line 2
5	12	i	ja	Mahārajasya	line 1
6	15	i	ṭa	Trepiṭaksya	line 1
7	19	i	ṇi	Bhikhuṇiye	line 2
8	21	i	tha	Pratithāvito	line 2
9	22	i	di	Di	line 1
10	22	ii	de	Devaputrasya	line 1
11	23	i	dhi	Bodhi	line 2
12	24	i	na	Dhanavatiye	line 2
13	25	i	pi	Pitakasya	line 1
14	25	ii	pu	Devaputrasya	line 1
15	27	i	ba	Balasya	line 1
16	27	ii	bu	Buddhamitrāye	line 1
17	27	iii	bo	Bodhisatva	line 2
18	28	i	bhi	Bhikshusya	line 1
19	28	ii	bhi	Bhikhuṇiye	line 2
20	29	i	ma	Mahārajasya	line 1
21	29	ii	mā	Mātā	line 2
22	30	i	yī	Bhāgineyīye	line 2
23	30	ii	ye	Bhikhuṇiye	line 2
24	31	i	ra	Mahārajasya	line 1
25	32	i	la	Balasya	line 1
26	34	i	va	Davaputrasya	line 1
27	37	i	sa	Sahā	line 2
28	37	ii	saṁ	Saṁ	line 1
29	38	i	hā	Sahā	line 2
30	38	ii	hā	Mahārajasya	line 1
31	38	iii	hu	Huvishkasya	line 1
32	39	i	kshu	Bhikshusya	line 1
33	39	ii	gṛi	Gṛi	line 1
34	39	iii	tra	Putrasya	line 1
35	40	i	tre	Trepiṭakasya	line 1
36	40	ii	ddha	Buddhamitrāya	line 1
37	40	iii	nte	Ante………	line 1
38	41	i	shka	Huvishkasya	line 1
39	41	ii	sya	Trepiṭakasya	line 1
40	41	iii	sya	Balasya	line 1
41	42	i	sya	Devaputrasya	line 1

42	42	ii	sya	Mahārajasya	line 1
43	43	i	3	....	linc 1
44	43	ii	8	....	line 1
45	43	iii	30	.. ..	line 1

Explanation of Table XXXIII. Plate VI.

Inscriptions of Kosam and Bāndhogarh Region : year 52-108

References :

A. Ginja inscription of Bhīmasena : year 52. *EI*, III. pl. opp. p. 306.

B. Kosam inscription of Bhadramagha : year 81. *EI*, XXIV. 256.

C. Allahabad Museum inscription of year 87. *EI*. XXIII. 247-8.

D. Kosam inscription of Śivamagha. *EI*, XVIII. 159. no. 2.

E. Kosam inscription of Bhadramagha : year 88. *EI*, XVIII. 160. no. 3.

F. Kosam inscription of Vaiśravaṇa : year 107. *EI*, XXIV. 147.

G. Inscriptions from Bāndhogarh. *EI*, XXXI. 167-86.

H. Kalivan inscription of Viśākhamitra : year, 108. *EI*, XXXI. 231.

1	1	i	a	Acha	C. no. B, line 5
2	1	ii	a	Ayayādāvadāra	E, line 4
3	1	iii	ā	Āsana	B. line 2
4	1	iv	a	Amechena	G. no. IX, line 3
5	4	i	e	Etaya	A. line 1
6	4	ii	e	Ekasīte	B. liue 1
7	4	iii	e	Etaye	B. line 2
8	6	i	ka	Katsa	B. line 2
9	6	ii	ku	Kulika	A. line 2
10	7	i	kha	Khanita	G. no. I, line 3
11	8	i	gi	Gi	A. line 1
12	8	ii	gu	Phagusamaka	G. no. VI, line 1
13	9	i	gha	Maghasya	G. no. B, line 3
14	9	ii	ghe	Maghe	G. no. IX, line 3
15	10	i	cha	Cha	C. no. B, line 4
16	10	ii	cha	Cha	C. no. A, line 4
17	11	i	chhī	Kochhīputasa	G. no. VI, line 1
18	12	i	ja	Rajasya	B. line 1
19	12	ii	ja	Maharājasya	A. line 1
20	12	iii	ja	Rājasya	C. no. B, line 1
21	16	i	ṭha	Poṭhasiri	G. no. VI, line 1
22	19	i	ṇi	Śreṇiye	B. line 2
23	20	i	ti	Mati	F. line 6
24	21	i	thi	Thikasa	G. no. VI, line 2
25	22	i	di	Divase	E. line 2
26	22	ii	di	Divase	A. line 1
27	22	iii	di	Divase	G. no. I, line 2
28	24	i	na	Senasya	A. line 1
29	24	ii	na	Āsanapaṭṭā	B, line 2
30	24	iii	pi	Śānikāya	C. no. B, line 5

31	24	iv	na	Nama(mo)	F. line 15
32	25	i	pa	Paksha	C. no. B, line 2
33	25	ii	pu	Puravayaṁ	A. line 2
34	25	iii	po	Poṭhasiri	G. no. VI, line 1
35	26	i	pha	Phagusamaka	G. no. I, line 3
36	27	i	be	Kosaṁbeyasa	G. no. VI, line 1
37	28	i	bha	Bhadramaghasya	C. no. B, line 1
38	28	ii	bha	Bhadrama...	C. no. A, line 1
39	28	iii	bhi	Bhimasenasya	A. line 1
40	29	i	ma	Maharājasya	A. line 1
41	29	ii	ma	Maharajasya	C. no. B, line 1
42	29	iii	ma	Mahārajasya	B. line 1
43	29	iv	ma	Mahārājasa	G. no. VI, line 1
44	30	i	ya	Etaya	C. no. B, line 3
45	30	ii	ya	Etaya	G. no. VI, line 1
46	31	i	ru	Puruvayā(ṁ)	C. no. B, line 3
47	31	ii	ru	Puruvayā(ṁ)	C. no. A, line 3
48	32	i	la	Mādgala(lī)	C. no. B, line 4
49	32	ii	li	Kulika	A, line 2
50	34	i	va	Savatsar(e)	C. no. B, line 1
51	34	ii	va	Suvanakaro	G. no. I, line 4
52	35	i	śa	Śavikāya	C. no. B, line 5
53	36	i	sha	Shaṇḍhakena	C. no. B, line 5
54	37	i	sa	Savatsare	C. no. B, line 5
55	37	ii	sau	Saudāryyehi	C. no. B, line 4
56	37	iii	si	Poṭhasiri	G. no. IX, line 2
57	37	iv	sa	Parigahitasa	G. no. IX, line 1
58	37	v	saṁ	Saṁvachhare	G. no. VI, line 1
59	38	i	ha	Maharājasya	A. line 1
60	38	ii	hā	Mahārājasya	B. line 1
61	38	iii	ha	Maharajasya	C. no. B, line 1
62	38	iv	hi	Putrehi	C. no. B, line 4
63	38	v	hā	Mahārājasa	G. no. VI, line 1
64	38	vi	hī	Sahīyam	G. no. VI, line 2
65	39	i	kshe	Pakshe	A. line 1
66	39	ii	gṛi	Gṛishma	B. line 1 (right side)
67	39	iii	ñcha	.. ñchama	C. no. B, line 3
68	39	iv	ṭṭā	Paṭīā	C. no. B, line 6
69	39	v	ṇḍha	Shaṇḍhakena	C. no. B, line 5
70	39	vi	ṇya	Pushkariṇya(ṁ)	C. no. B, line 5
71	40	i	tre	Putrehi	C. no. B, line 4
72	40	ii	tsa	Savatsare	C. no. B, line1
73	40	iii	tsa	Savatsare	C. no. B, line 1
74	40	iv	dga	Mādgal(ī)	C. no. B, line 4
75	40	v	ddhi	Siddhi	A. line 2
76	40	vi	dra	Bhadra	C. no. A, line 1
77	41	i	bhrā	Bhrāt(ṛi)hi	C. no. B, line 4
78	41	ii	rmma	Dharmma	C. no. B, line 6
79	41	iii	ryye	Saudāryyehi	C. no. B, line 4
80	41	iv	rsha	Varsha	C. no. B, line 2
81	41	v	lla	Pall[ā]naka	C. no. A, line 3
82	41	vi	śrī	Śrī	C. no. B, line 1
83	42	i	śrī	Śrī	A. line 1
84	42	ii	shma	Gṛishma	B. line 1, (right side)

85	42	iii	sya	Maharājasya	A. line 1
86	42	iv	sya	Maharājasya	B. line 1
87	43	i	2	....	A. line 1
88	43	ii	5	....	C. no. B, line 3
89	43	iii	7	....	C. no. B, line 2
90	43	iv	10	....	A. line 1
91	43	v	50	... .	A. line 1
92	43	vi	80	....	C. no. B, line 2
93	44	i	6	... .	G. no. VI, line 1
94	44	ii	6	....	G. no. IX, line 2
95	44	iii	8	....	H.
96	44	iv	100	....	H.
97	44	v	100	....	F. line 3

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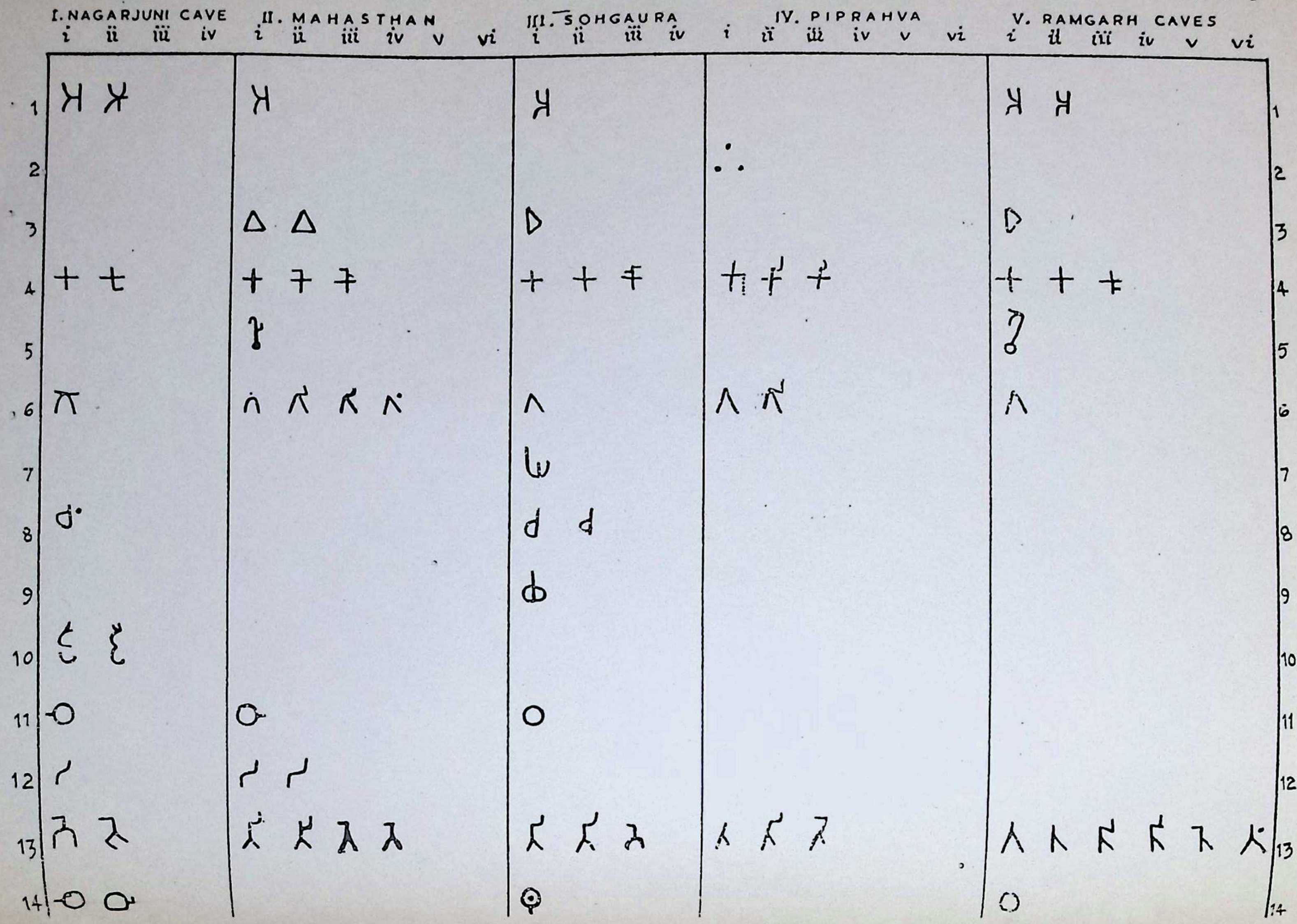
I. NAGARJUNI CAVE
i ii iii iv
II. MAHASTHAN
i ii iii iv v vi
III. SOHGAURA
i ii iii iv
IV. PIPRAHVA
i ii iii iv v vi
V. RAMGARH CAVES
i ii iii iv v vi
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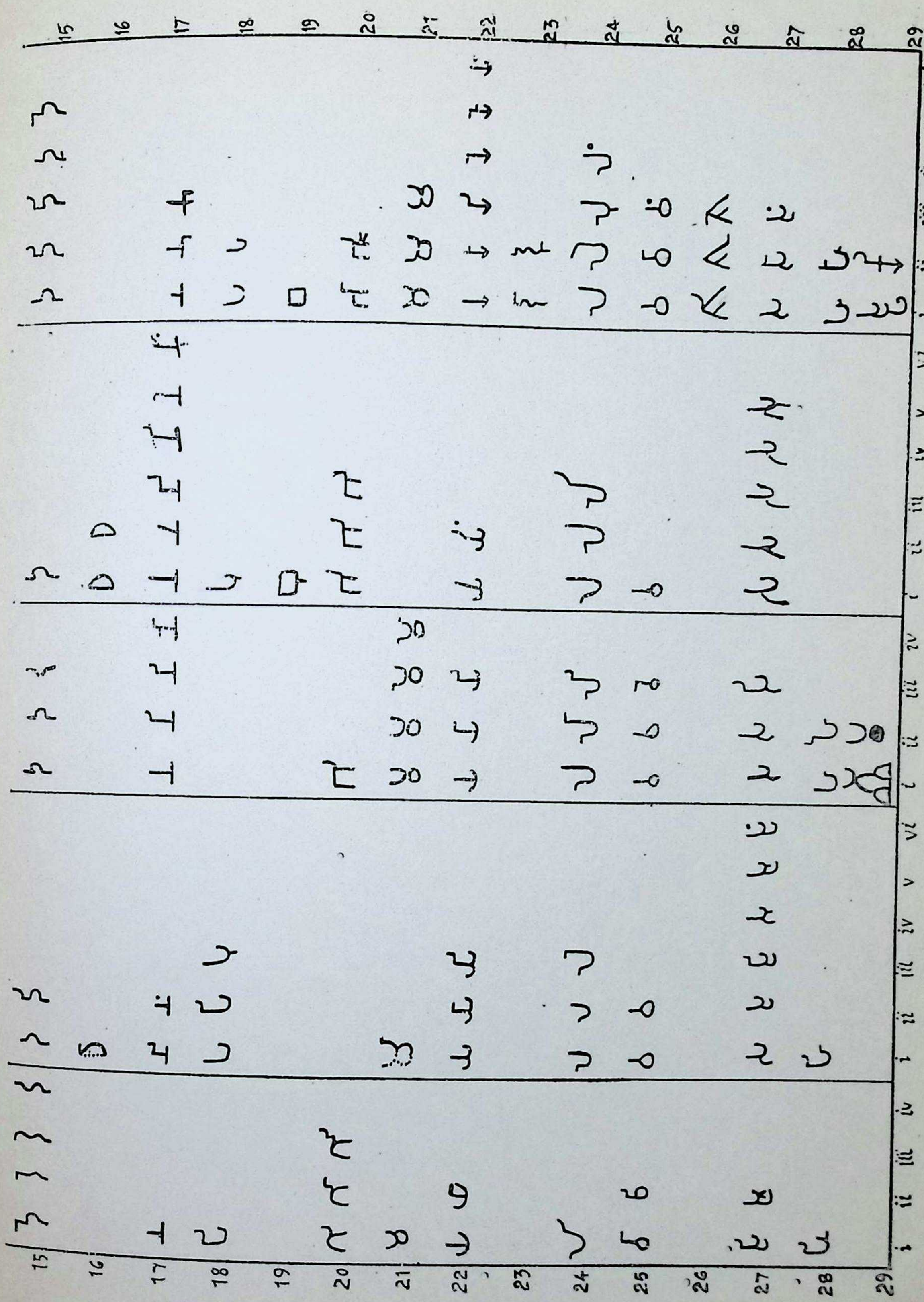
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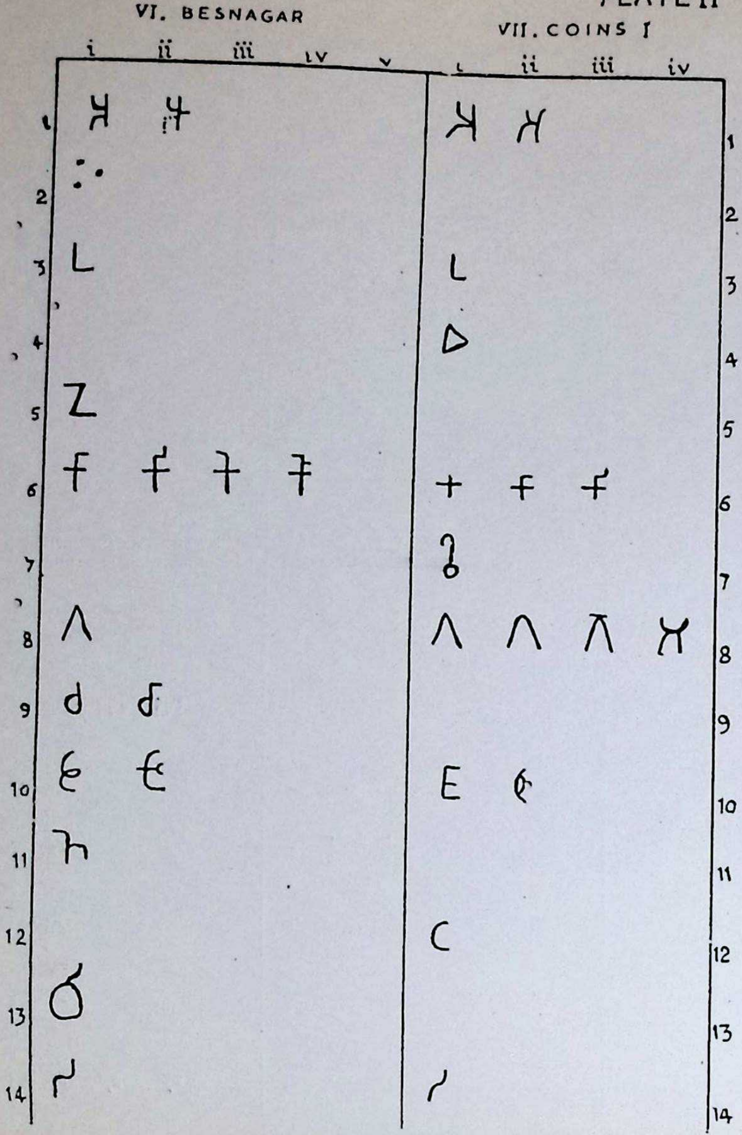
PLATE I

KEY

	I. NAGARJUNI CAVE				II. MAHASTAN						III. SOHGAURA				IV. PIPRAHVA						V. RAMGARH CAVES						
	i	ii	iii	iv	i	ii	iii	iv	v	vi	i	ii	iii	iv	i	ii	iii	iv	v	vi	i	ii	iii	iv	v	vi	
1	a	ā			a						a										a	a					1
2															i												2
3					e	e					e										e						3
4	ka	ku			ka	ke	ko				ka	ka	ko		ka	ki	ki				ka	ka	ku				4
5					khi																khe						5
6	go				ga	gi	gi	gam			ga				ga	gi					ga						6
7											gha																7
8	cham										cha	chu															8
9											chhi																9
10	ji	jī																									10
11	ṭhe				ṭhā						ṭha																11
12	ḍa				ḍa	ḍa																					12
13	te	te			ti	ti	te	te			ti	ti	te		ta	ti	te				ta	ta	ti	ti	te	tam	13
14	the	thi									thu										tha						14

15	de	de	de	di	da	di					da	da	da		da						da	di	di	du	de		5
16					dhā										dha	dha											6
17	na				ni	naṁ					na	ni	ni	no	na	na	ni	ni	ne	naṁ	na	nu	nū				17
18	pi				pa	pi	pu								pu						pa	pa					18
19															bu						ba						19
20	bha	bhā	bhi								bha				bha	bha	bha				bhā	bhū					20
21	ma				mā						ma	ma	me	mo							ma	ma	ma				21
22	ya	yā			ya	yā	yi				ya	yā	yi		ya	yiṁ					ya	yā	yi	ye	yo	yaṁ	22
23																					rā	ru					23
24	li				la	la	le				la	la	li		la	la	li				la	le	lu	laṁ			24
25	va	vi			va	va					va	va	ve		va						va	vā	vaṁ				25
26																					śi	śu	śe				26
27	si	sū			sa	sa	si	su	su	saṁ	sa	sa	si		sa	sa	sa	sa	su		sa	sā	saṁ				27
28	hi				hi						ha	hi									ha	hā					28
29											symbol	symbol									spha	kyi					2
	i	ii	iii	iv	i	ii	iii	iv	v	vi	i	ii	iii	iv	i	ii	iii	iv	v	vi	i	ii	iii	iv	v	vi	

PLATE II


VI. BESNAGAR
VII. COINS I
i
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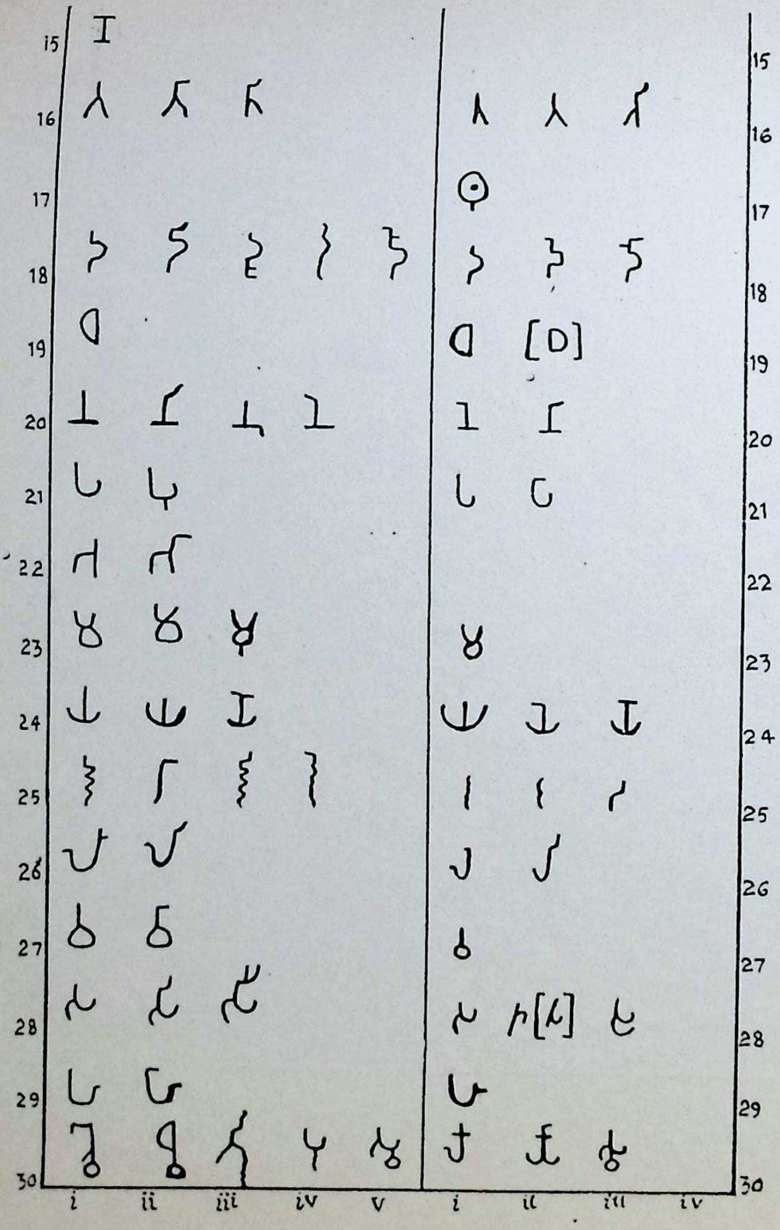
KEY

PLATE II

	VI. BESNAGAR i	ii	iii	iv	v	VII. COINS I i	ii	iii	iv	
1	a	ā				a	a			1
2	i									2
3	u					u				3
4						e				4
5	o									5
6	kā	ki	ke	ko		ka	kā	ki		6
7						kha				7
8	ga					ga	ga	go	go	8
9	cha	chā								9
10	ja	je				jo	ja			10
11	ña									11
12						to				12
13	ṭhi									13
14	ḍa					ḍa				14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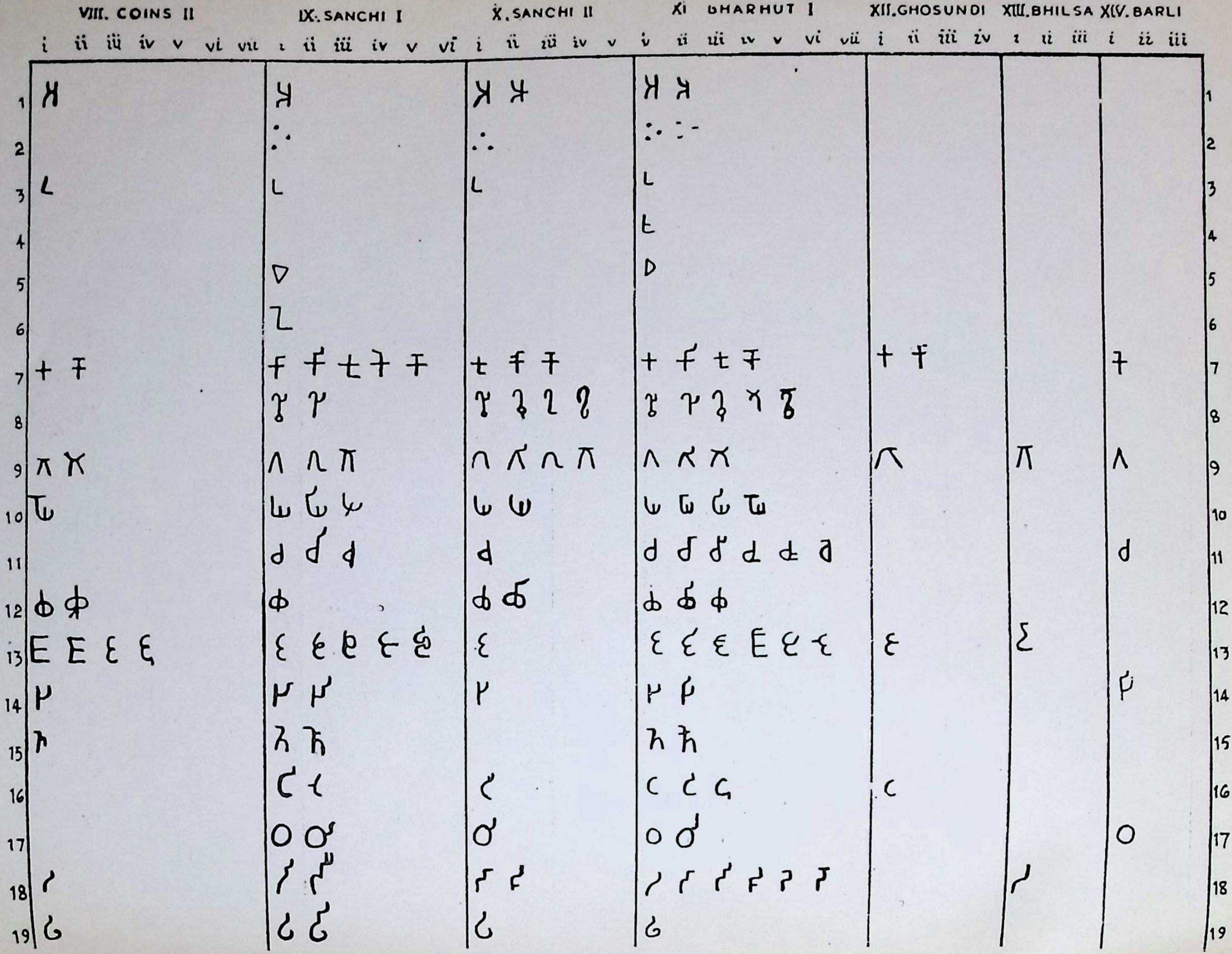
	i	ii	iii	iv	v	i	ii	iii	iv	
15	ṇa									15
16	ṭa	tā	ti			ta	ta	ti		16
17						thu				17
18	da	di	dū	de	do	da	de	do		18
19	dha					dha	[dha			19
20	na	ni	nu	ne		ne	nā			20
21	pa	pu				pa	pā			21
22	bha	bhā								22
23	ma	ma	mu			ma				23
24	ya	ya	yo			ya	ye	yo		24
25	ra	rā	ri	re		ra	ra	ri		25
26	la	li				le	li			26
27	va	vā				va				27
28	sa	si	sī			sa	sa	sa		28
29	ha	hā				ha				29
30	khkha	dhva	tri	pra	sva	kla	kya	sva		30

PLATE III


VIII. COINS II
i ii iii iv v vi vii
IX. SANCHI I
i ii iii iv v vi
X. SANCHI II
i ii iii iv v
XI BHARHUT I
i ii iii iv v vi vii
XII. GHOSUNDI
i ii iii iv
XIII. BHILSA
i ii iii
XIV. BARLI
i ii iii
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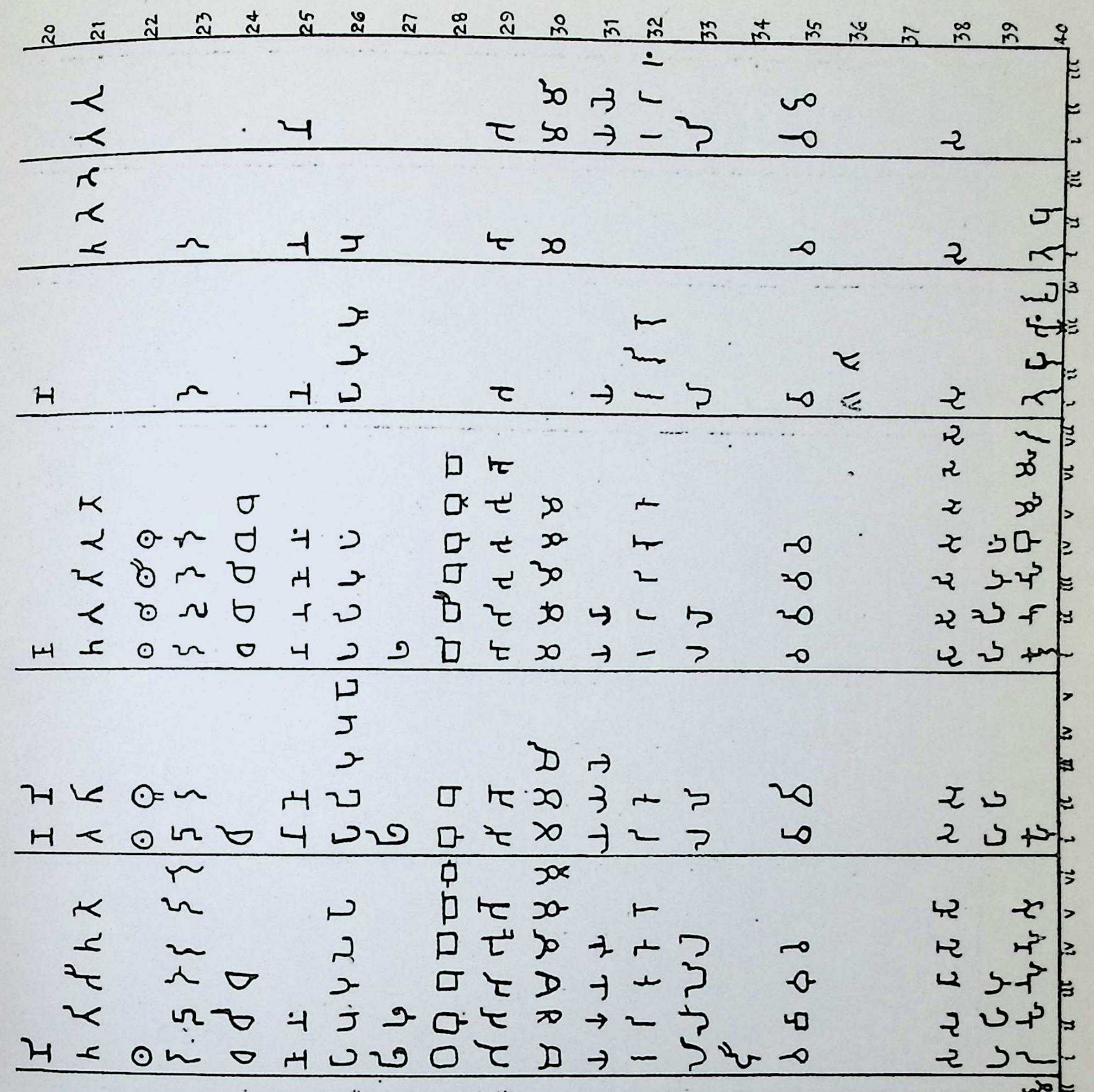
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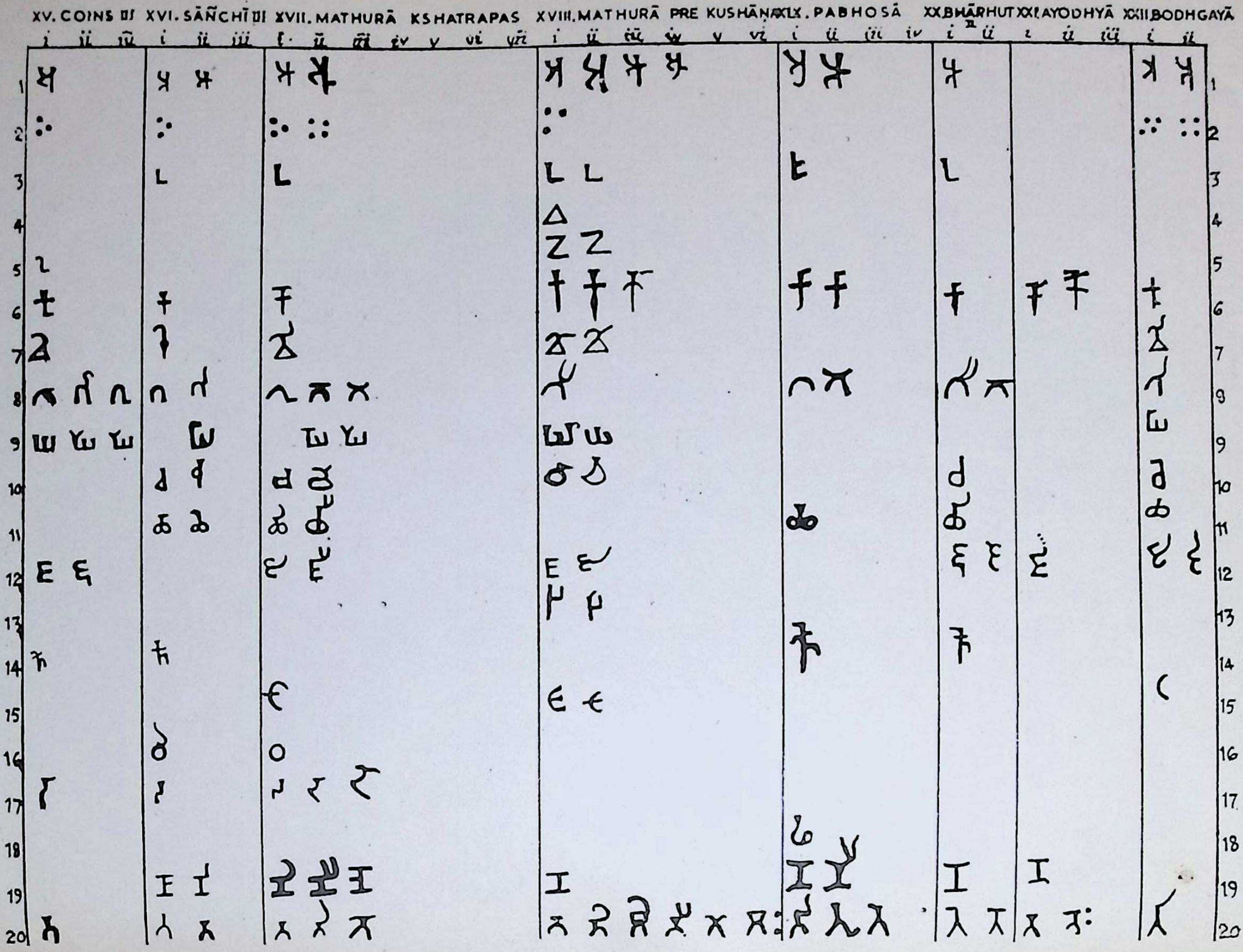
KEY

PLATE III

	VIII. COINS II	IX. SANCHI I	X. SANCHI II	XI. BHARHUT I	XII. GHOSUNDI	XIII. BHILSA	XIV. BARLI	
	i ii iii iv v vi vii	i ii iii iv v vi	i ii iii iv v	i ii iii iv v vi vii	i ii iii iv	i ii iii	i ii iii	
1	a	a	a ā	a a				1
2		i	i	i i				2
3	u	u	u	u				3
4				ū				4
5		e		e				5
6		o						6
7	ka ko	kā ki ku ke ko	ku ko ko	ka ki ku ko	ka kā		ke	7
8		khi khi	khi khu khu kha	khi khi khu kho kho				8
9	go go	ga gu go	ga gi gu go	ga gi go	gā	go	ga	9
10	gho	gha ghi ghu	gha gha	gha ghā ghi gho				10
11		cha chi chu	chu	cha chā chi chu chū che			cha	11
12	chha chhū	chhu	chha chhi	chha chhi chhu				12
13	jo ja ja ju	ja ja ja jā ji	ja	ja jā jā jā ji je	jā	je		13
14	jha	jhā jhi	jha	jha jhi			jhi	14
15	ña	ña ñā	ña ño					15
16		ṭi ṭe	ṭi	ṭa ṭi ṭu	ṭo			16
17		ṭha ṭhi	ṭhi	ṭha ṭhi			ṭha	17
18	ḍa	ḍi ḍi	ḍā ḍu	ḍo ḍā ḍi ḍu ḍe ḍo		ḍa		18
19	ḍha	ḍha ḍhi	ḍha	ḍha				19

20		ṇi	ṇa ṇi	ṇā	ṇa			20
21	ta ta ta ta ti ti	ta ti tī tu to	ta tā	ṭa ta ti ṭu to		ta te te	ta tu	21
22		tha	thi thū	tha thi thī thu				22
23	da da de	dā dā dā di di de	dā dā	di du de de	de	da		23
24	dha	dha dhi dhu	dhi	dha dhā dhi dhu dhu				24
25	nā	no naṁ	nā no	nā nu no naṁ	ne	no	ni	25
26	pa pa pu	pā pu pu pe po	pa pi pu pu po	pa pi pu paṁ	pā pu pū	pu		26
27		phi phu	phi	pha				27
28	ba bi bi	ba bu bu be bo bo	bu bu	bi bī bu bu bū bo				28
29	bhū	bha bhā bhī bhū bho	bhi bho	bhā bhi bhi bhu bhū bho	bha	bhā	bha	29
30	ma ma mā mi	ma ma ma mā mu mū	ma ma mi	ma mā mi mu mo		ma	mā mi	30
31	ya ya yo	ya ya ya yu	ya ya ye	ya yā	ya		ya ye	31
32	rā ru	ra ri rā ro ro	ri ro	ra rā ri ro ro	rā ri ro		ra rā raṁ	32
33	la la	lā li li le	la li	la lo	lā		li	33
34		lī						34
35	va va vā vi	va vā vu ve	vā vi	va vi vi ve	vā	va	va vī(?)	35
36	śa śi				śa śi			36
37	sha							37
38	sa sa sa sa su su	sa sa sā sā so so	sa su	sā si si su su se so	su	sa	sa	38
39	ha hā	ha hi hu	hā hi	hi hī hu haṁ				39
40	ñña tra tra bra bra shṇu hma	dra vha nhu ṇhu sva	ṇhu	kra ṅkha ṅhi bra mha mha dra	tre prā bhyaṃ rsha	tre prā		40
	i ii iii iv v vi vii	i ii iii iv v vi	i iii iv v vi	i ii iii iv v vi vii	i ii iii iv	i ii iii	i ii iii	

PLATE IV


XV. COINS III
XVI. SĀÑCHĪ III
XVII. MATHURĀ KSHATRAPAS
XVIII. MATHURĀ PRE KUSHĀṆA
XIX. PABHOSĀ
XX. BHĀRHUT II
XXI. AYODHYĀ
XXII. BODHGAYĀ
i ii iii
i ii iii
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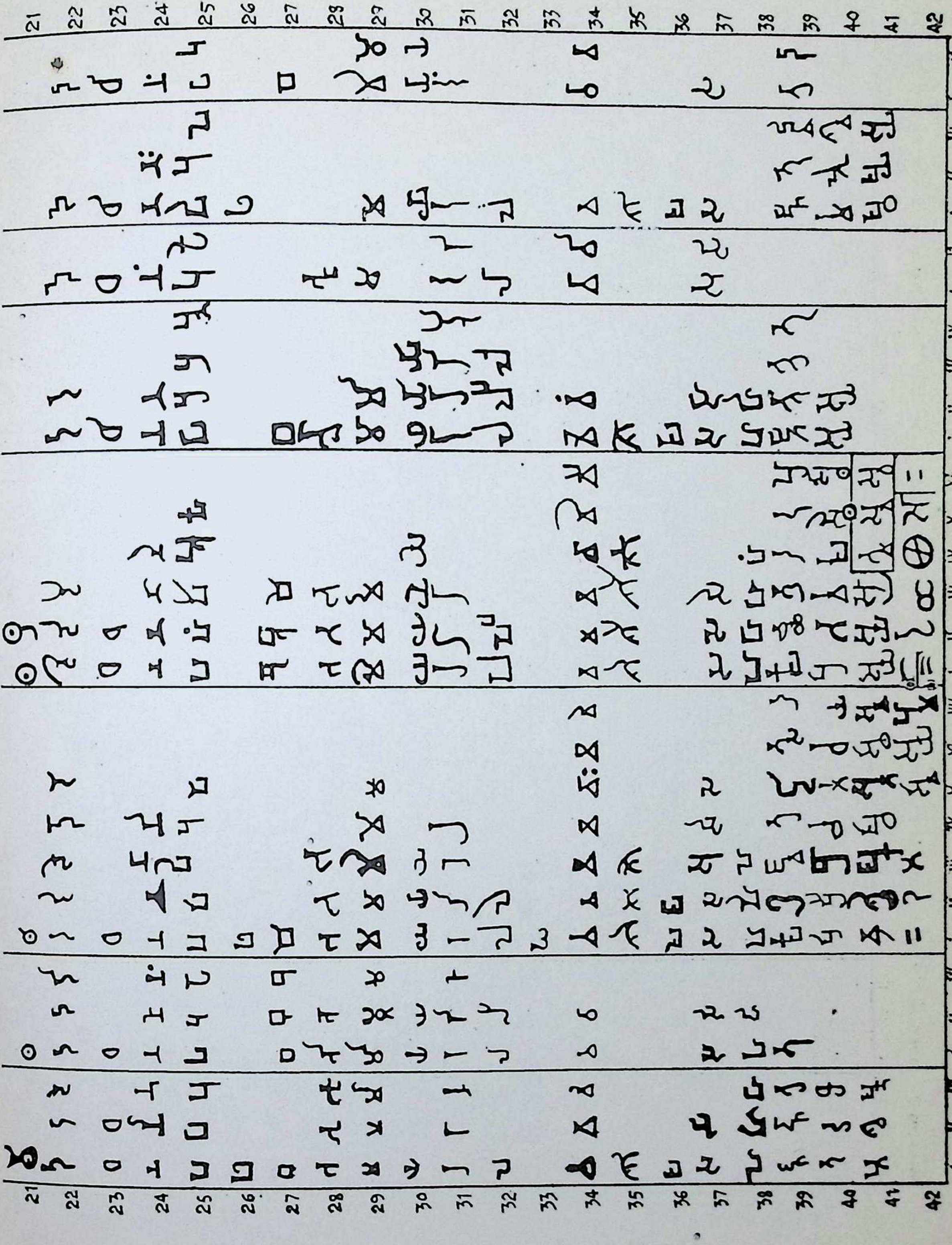
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KEY

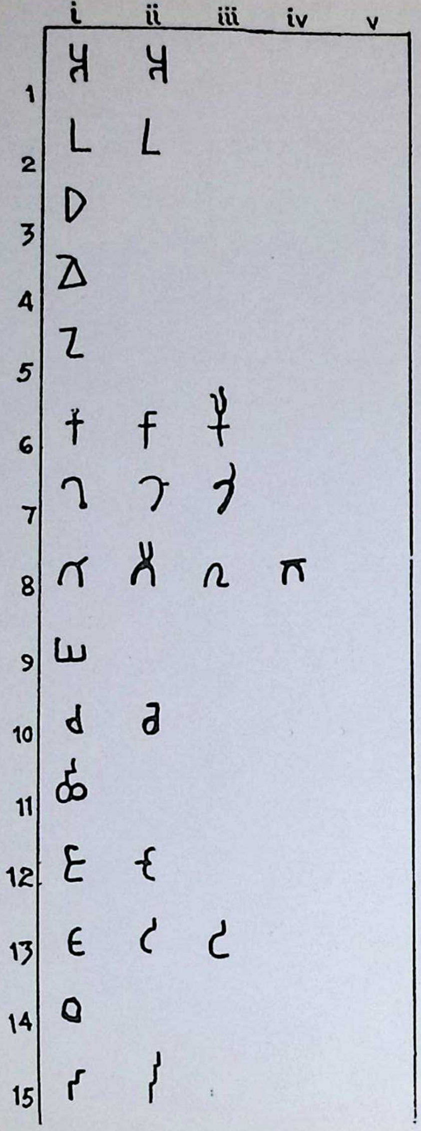
PLATE IV

	XV. COINS III			XVI. SĀÑCHĪ III			XVII. MATHURĀ KSHATRAPAS							XVIII. MATHURĀ PRE-KUSHĀṆA						XIX. PABHOSĀ				XX. BHARHUT II		XXI. AYODHYĀ			XXII. BODHGAYĀ		
	i	ii	iii	i	ii	iii	i	ii	iii	iv	v	vi	vii	i	ii	iii	iv	v	vi	i	ii	iii	iv	i	ii	i	ii	iii	i	ii	
1	a			a	ā		ā	ā						a	a	ā	ā			a	ā			ā					a	a	1
2	i			i			i	im						i															im	im	2
3				u			u							u	u					ū				u							3
4														e																	4
5	o													o	o																5
6	ku			ḳa			ko							ka	ka	kā				kā	kā			kā		ko	kau		ku		6
7	kha			kha			khi							khā	khā														khi		7
8	gā	gi	gu	ga	gi		gu	go	go					gī						ga	go			gī	go				gi		8
9	gha	gho	gho		ghā		gho	gho							gha	gho													gha		9
10				cha	chu		cha	cho						cho	cha									cha					che		10
11				chha	chhe		chhi	chhī												chha				chhi					chha		11
12	ja	ju					ji	jī						ja	jā									ju	je	ji			jā	ji	12
13														jha	jhā																13
14	ño			ño																ño				ño							14
15							ṭo							ṭā	ṭo														ṭa		15
16				ṭhi			ṭha																								16
17	ḍā			ḍa			ḍa	ḍā	ḍā																						17
18																				ḍha											18
19				ṇā	ṇi		ṇi	ṇī	ṇe					ṇa						ṇa	ṇī			ṇa		ṇu					19
20	ta			ta	ta		ta	ti	to					tá	ti	ti	tī	to	taḥ	ti	tu	te		te	to	ta	teḥ		ti		20

21	thi	tha	thi	tha thu					21
22	da dā de	da dā di	da di de do do	di di dī	da da	de	de	dā	22
23	dha dha	dha	dha	dha dhū	dhi	dha	dhi	dhi	23
24	na ni nu	na no naiṁ	na na nā ni	na na nā nī	na na	naṁ	na naḥ	naṁ	24
25	pa pā pu	pa pu po	pa pā pi pu po	pa paṁ pī pū pau	pā pu pu pū	pu pau	pi pu pe	pā pu	25
26	pha		pha				pha		26
27	ba	ba bu bu	bo	bu bū bo	ba			bo	27
28	bha bhu bhū	bhi bho	bha bhā bhā	bha bha bha	bhā	bhū			28
29	ma ma mi	mi mū me	ma mā mi mo mo	mi mo mi	mā mi	ma	me	mi mo	29
30	ya	ya ya	ya yā ye	ya ya ye ye	yā yā yā		yā	yā ye	30
31	ra rā ru	ra ṛi ro	ra ri re ra	ra -rā rā	rā rā ri rī	ra ṛi	ra	raṁ	31
32	la	la lī	la le	la lī	la lī le	lā	la		32
33			ḷa						33
34	va va vi	va vā	va va va va vāḥ va vi	va va va vā vi vī	vai vaṁ	vā vi	va	vā vā	34
35	śi		śi śo śai	śi śī śī śau	śo		śi		35
36	sha		she shā		shā		sha		36
37	sa sā	sa si	sa sa su si se	sa se si	sa sā	su si	sa	sa	37
38	ha ha hā	ha hi	ha hi he	ha hā hā haṁ	ha hi				38
39	jña jña tra	tra	ksha gra jva tra ṭṭā tsa dra	ksha chchha tra dra dra pra	jñā ttrā ttra tre		jñā tre dvi	tra drā	39
40	tra dra dhru		pri prī brā rcha rta rdha rya	prā rga rva rsha sthi sthā	sya sya		rma lgu śva		40
41	pta śva shṇu		vṛi śchi shkā shṭhā sta sthā sva	sya sya syā ta sa sa			shṭhe shya sya		41
42			2 9 70 sva sya hma	(a) 1 / (b) 2 9 10 90 200 PUNCT MARK					42
	i ii iii	i ii iii	i ii iii iv v vi vii	i ii iii iv v vi	i ii iii iv	i ii	i ii iii	iv ii	

PLATE IV.A

HĀTHĪGUMPHĀ INSCRIPTION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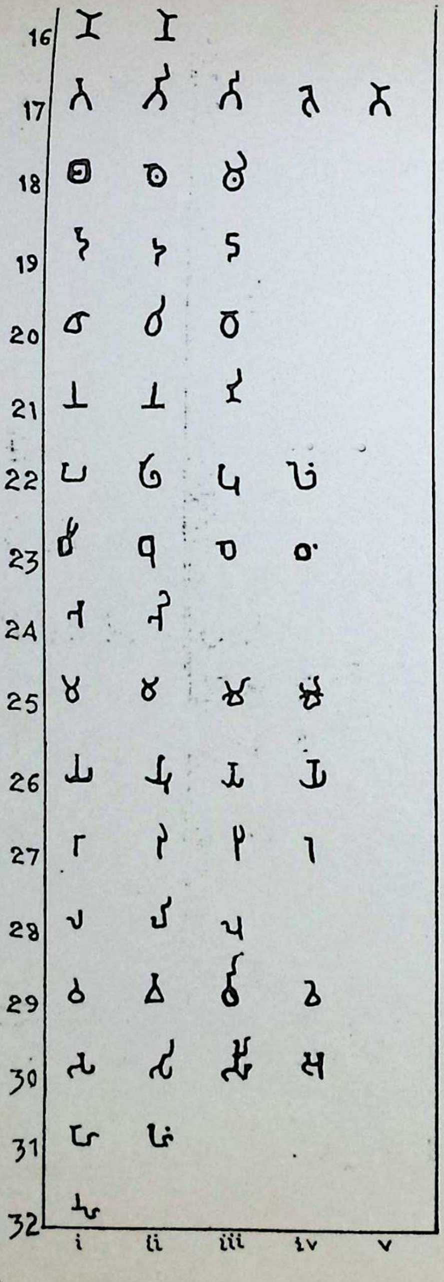
KEY

	i	ii	iii	iv	v
1	a	a			
2	u	u			
3	e				
4	ai				
5	o				
6	ka	ka	kī		
7	kha	khā	khi		
8	gā	gī	gu	go	
9	gha				
10	cha	che			
11	chhi				
12	ja	je			
13	ṭā	ṭi	ṭi		
14	ṭha				
15	ḍā	ḍi			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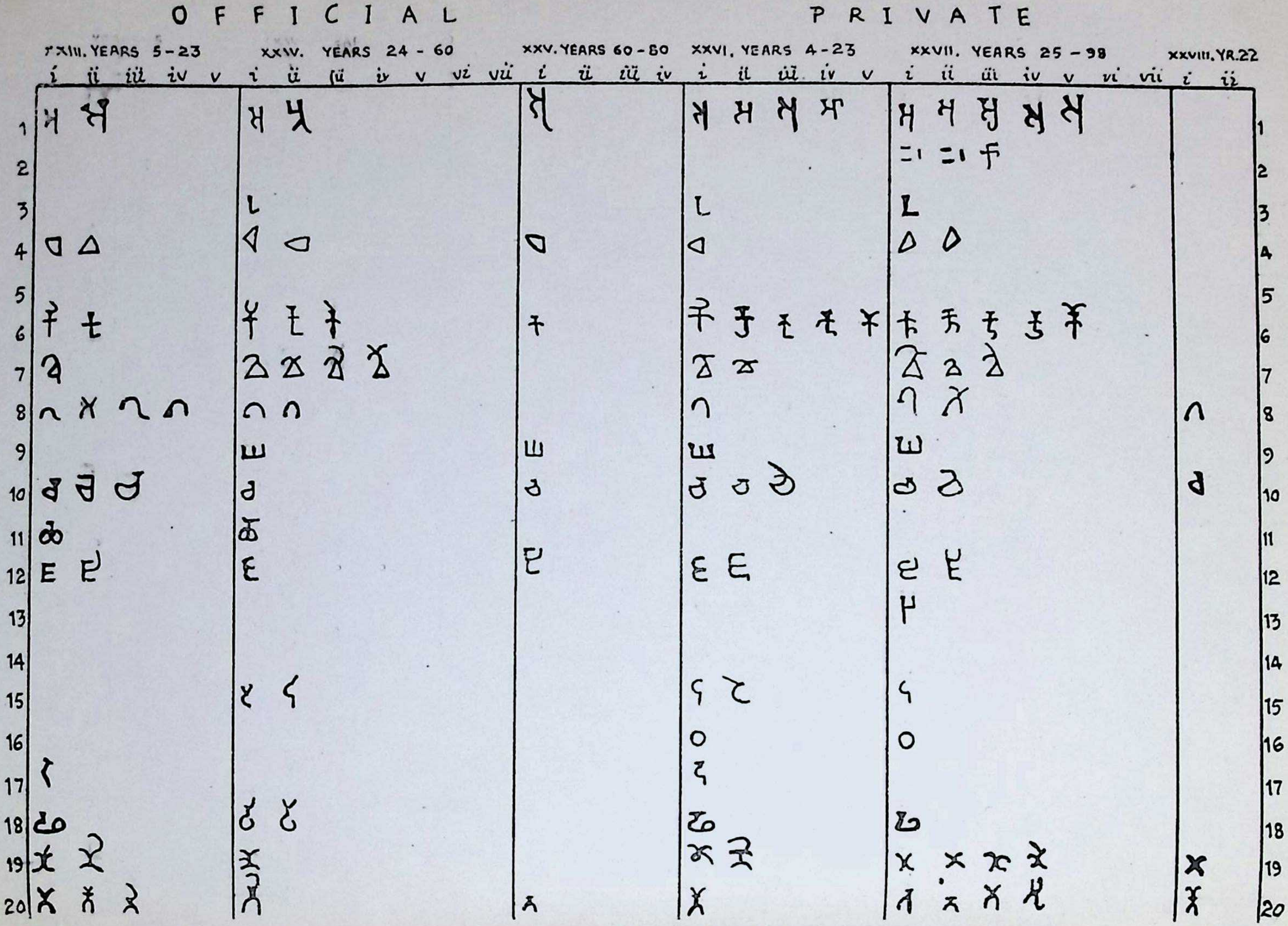
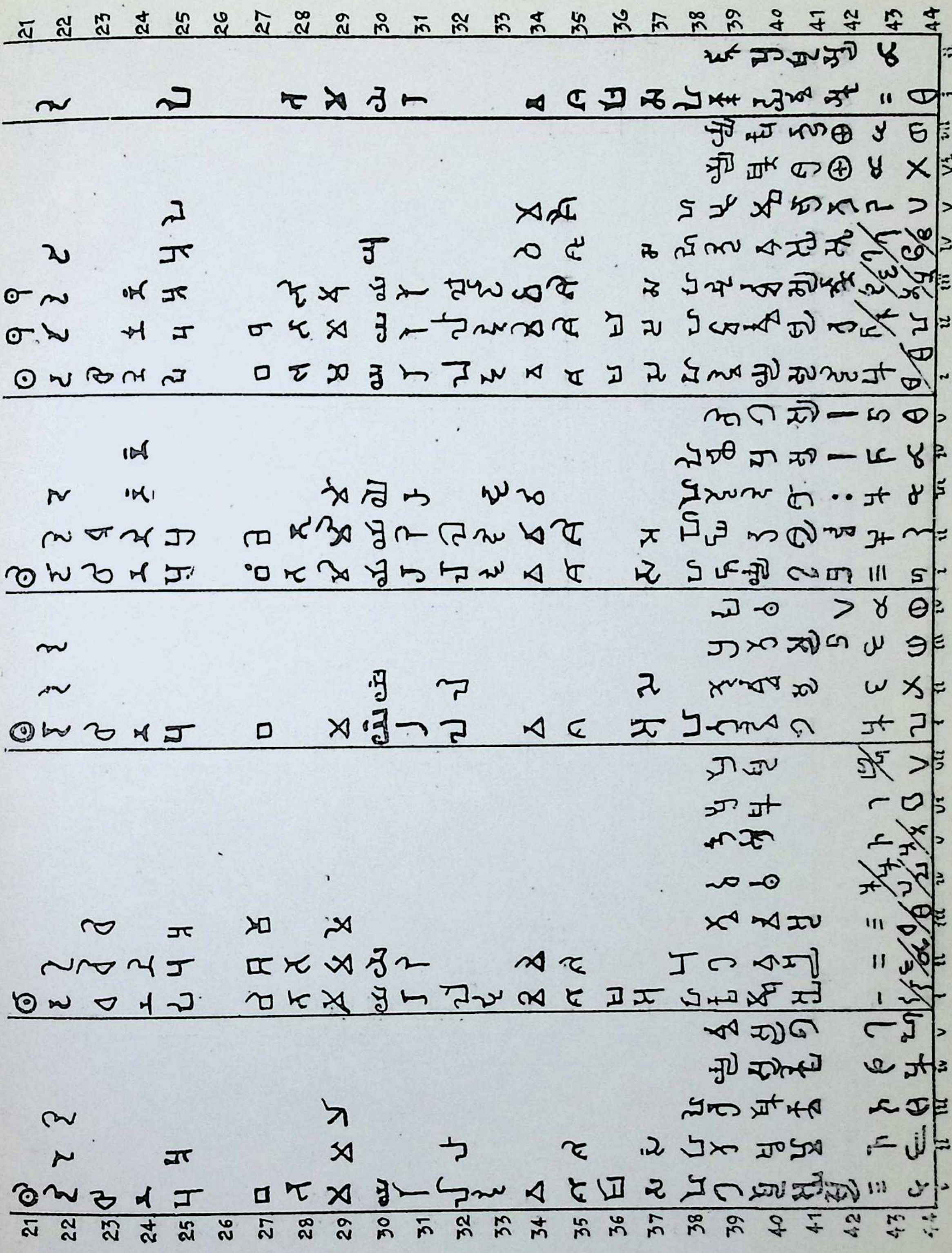
iv
v

i	ii	iii	iv	v	
ṇa	ṇa				16
ta	ti	ti	te	to	17
tha	the	thī			18
da	da	dā			19
dhā	dhi	dho			20
na	na	ni			21
pa	pā	pu	paṁ		22
bī	bu	be	baṁ		23
bha	bhi				24
ma	ma	mo	mo		25
ya	yu	yo	yo		26
rā	ri	rī	re		27
la	li	lu			28
va	va	vi	ve		29
sa	si	sī	su		30
hā	haṁ				31
nha					32

PLATE V

WESTERN STYLE (MATHURA AND SANCHI REGION)


OFFICIAL
PRIVATE
XXIII. YEARS 5-23
XXIV. YEARS 24 - 60
XXV. YEARS 60 - 80
XXVI. YEARS 4-23
XXVII. YEARS 25 - 98
XXVIII. YR. 22
i ii iii iv v
i ii iii iv v vi vii
i ii iii iv
i ii iii iv v
i ii iii iv v vi vii
i ii
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20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KEY

PLATE V

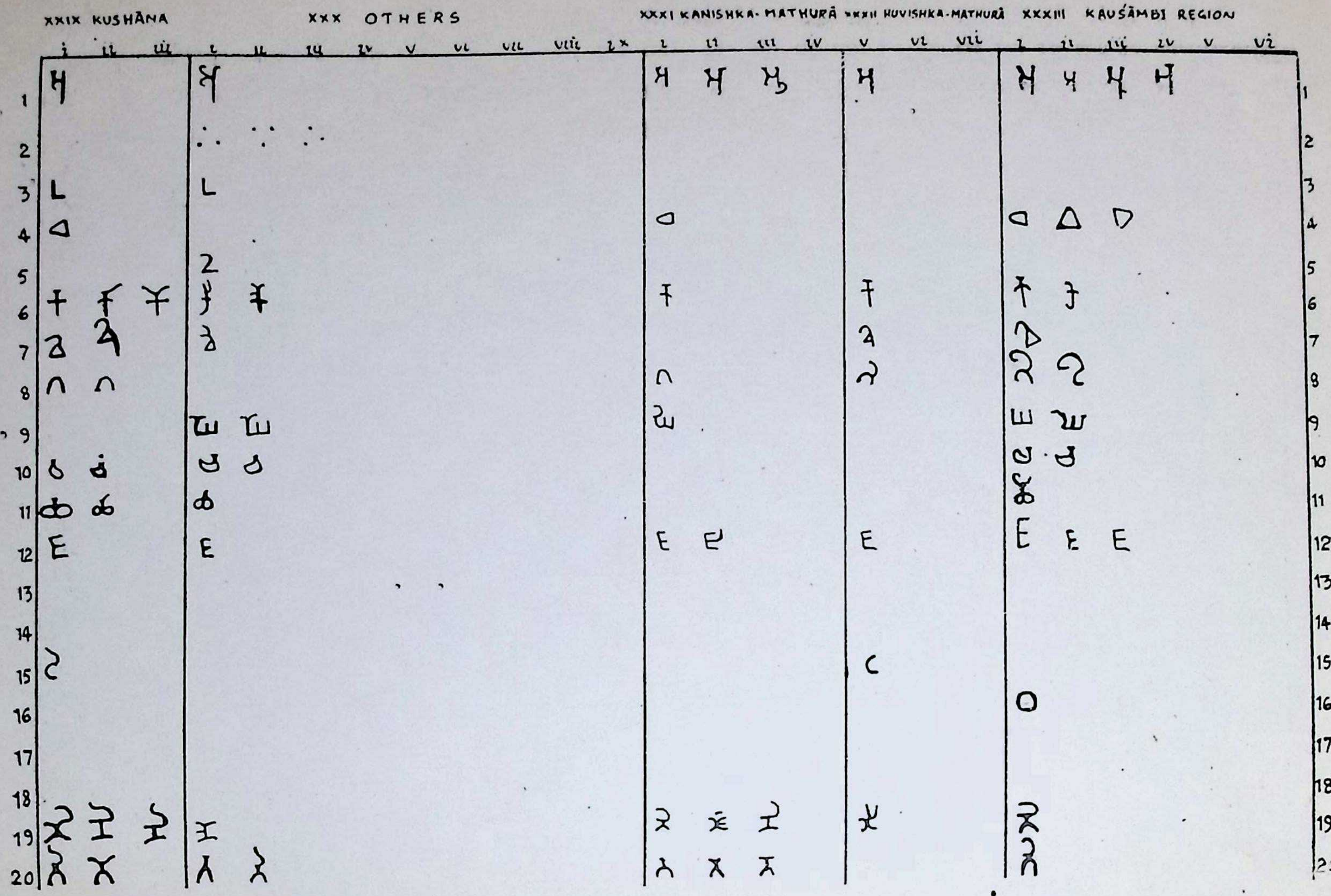
WESTERN STYLE(MATHURA AND SANCHI REGION)

	OFFICIAL																PRIVATE														
	XXIII. YEARS 5-23					XXIV. YEARS 24-60							XXV. YEARS 60-80				XXVI. YEARS 4-22					XXVII. YEARS 25-98							XXVIII. YR.22		
	i	ii	iii	iv	v	i	ii	iii	iv	v	vi	vii	i	ii	iii	iv	i	ii	iii	iv	v	i	ii	iii	iv	v	vi	vii	i	ii	
1	a	a				a	a						a				a	a	a	ā		a	a	a	a	a					1
2																						i	i	ī							2
3						u											u					u									3
4	e	e				e	e						e				e					e	e								4
5																															5
6	ki	ku				ko	ku	ke					ka				ki	ku	ku	ku	ko	ku	ku	ku	ku	ko					6
7	khu					kha	khā	khi	kho								khā	khā				khā	kha	khe							7
8	ga	go	gu	ga		ga	ga										ga					gu	go						ga		8
9						gha							gha				gha					gha									9
10	cha	che	cha			cho							cha				cha	cha	che			cha	che						cha		10
11	chha					chhā																									11
12	ja	jā				ja							jā				ja	ju				jā	jī								12
13																						jha									13
14																															14
15						ti	ṭu										tu	ṭe				ṭu									15
16																	ṭha					ṭha									16
17	ḍa																ḍa														17
18	ḍha					ḍhi	ḍhī										ḍha					ḍha									18
19	ṇā	ṇi				ṇe											na	ṇi				na	na	ṇa	ṇe				ṇa		19
20	to	to	ti										ta				to					ta	ta	to	tī				to		20

21	thi	thā	tha	thi	tha thu thu		21
22	di de di	da de	dā de di	da di de	da dā di di	di	22
23	dhi	dha dhi dhi	dhi	dhi dhū	dhi		23
24	na	na ni	na	na ni naṁ naṁ	ni nā naṁ		24
25	pu pū	pi pu pū	pu	pu pu	pi pu pū pū pe	pi	25
26							26
27	ba	bi bū bo	ba	baṁ bi	ba bu		27
28	bha	bhā bho		bha bhu	bha bhā bhu	bha	28
29	ma ma mā	ma. mā mi	ma	mi mi mo	ma mā mu	ma	29
30	ya	ya ye	yaṁ yāṁ	yā yā ye	ya ya yā yu	ye	30
31	rā	rā ri	ra	rā ṛi ru	rā re ro	rā	31
32	lā lā	le	la li	lo li	la lā lo		32
33	ḷi	ḷi		ḷi ḷi ḷa	ḷa ḷi ḷi		33
34	va	vi vi	va	va vā vi	va vi vi ve vo	va	34
35	śā śi	śā śi	śa	śā śi	śā śi śi śū śai	śa	35
36	shā	sha			sha sho	shā	36
37	sa saṁ	su	sa se	sa su	sa sa sa sa	sa	37
38	he ha	hā hu	ha	ha ho he hi	ha ha hā hi he	hi	38
39	gra tro tra ryya rvva	ksha gra tvo ddha nnṛi prī pro	tra ṇḍa pra rsha	ṅga ṅgha ṭṭo chchha tri	dve dvā ndi ndi pañ ryya ryya	kka jño	39
40	shyo shṭha shko sya sya	mbu vṛi rva rtha śrī shka shṭā	dvi rvva tro rtha	ryya dra dri pri gṛi	yya rvva rvva vṛi mba shṇā kshu	dya pra	40
41	sya hma kkha kshi gra	sya sya sya sya	gri sya sya	gri śya śrā scha sya	sya sya sya sya bhrā śra ndra	rvva shṭā	41
42	sya		8 60	bra rddha PUNCTUATION MARKS	ṭṭi tra rṇṇg stu tṛi 90 90	sku sya	42
43	3 5 5 6 7	1 2 3 4/4 5 7 8/8	4 6 10 10	3 4 4 5 8	4 5/5 6/6 7/7 9 10 10	2 10	43
44	10 10 20 4 8	9/9 10/10 20/20 30/30 40/40 50 60	30 70 80 80	8 9 10 10 20	20/20 30 40/40 50/50 60 70 80	20	44
	i ii iii iv v	i ii iii iv v vi vii	i ii iii iv	i ii iii iv v	i ii iii iv v vi vii	i ii	

PLATE VI

EASTERN STYLE


XXIX KUSHĀNA
XXX OTHERS
XXXI KANISHKA-MATHURĀ
XXXII HUVISHKA-MATHURĀ
XXXIII KAUŚĀMBI REGION
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i ii iii iv v vi vii viii ix
i ii iii iv
v vi vii
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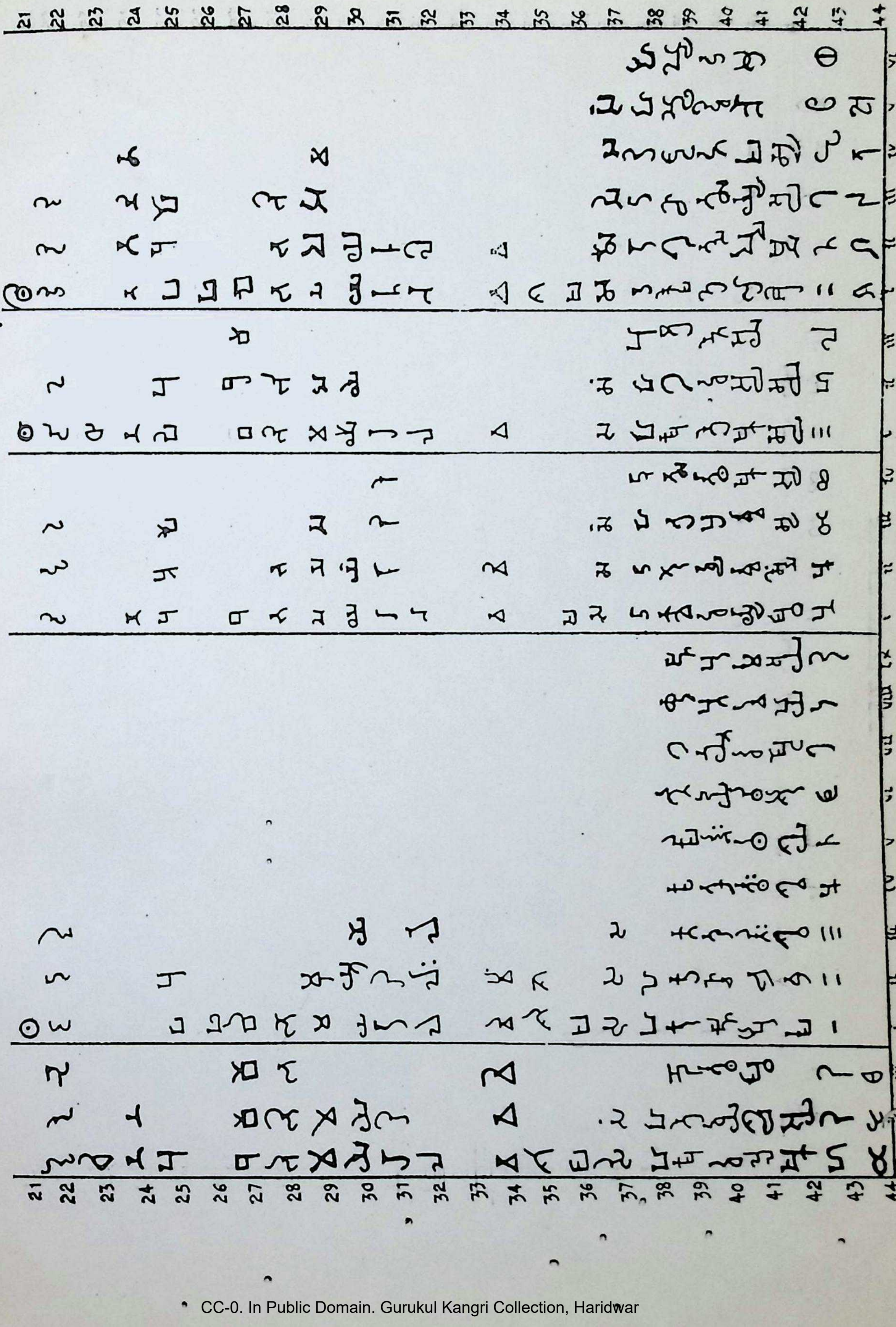
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PLATE VI

EASTERN STYLE

	XXIX. KUSHĀṆA			XXX. OTHERS									XXXI. KANISHKA-MATHURĀ				XXXII. HUVISHKA-MATHURĀ			XXXIII. KAUŚĀMBI REGION						
	i	ii	iii	i	ii	iii	iv	v	vi	vii	viii	ix	i	ii	iii	iv	i	ii	iii	i	ii	iii	iv	v	vi	
1	aṁ			ā									a	ā	ā		a			a	a	ā	a			1
2				i	i	i																				2
3	u			u																						3
4	e												e							e	e	e				4
5				o																						5
6	ka	kā	ko	kī	kau								ka				ka			ka	ku					6
7	kha	khu		khe													khu			kha						7
8	ga	ga											ga				gi			gi	gu					8
9				gho	gho								ghi							gha	ghe					9
10	cha	chaṁ		cha	cha															cha	cha					10
11	chha	chhā		chha																chhī						11
12	ja			ja									ja	jā			ja			ja	ja	ja				12
13																										13
14																										14
15	ṭi																ṭa									15
16																				ṭha						16
17																										17
18																										18
19	ṇi	ṇi	ṇi	ṇe									ṇi	nāṁ	ṇi		ṇi			ṇi						19
20	ti	to		ta	ti								ta	ta	to					ti						20

	i	ii	iii	i	ii	iii	iv	v	vi	vii	viii	ix	i	ii	iii	iv	i	ii	iii	i	ii	iii	iv	v	vi	
21				tha													thā			thi						21
22	di	de	de	dā	dā	di							di	du	de		di	de		di	di	di				22
23	dhi																dhi									23
24	na	na											nā				na			na	na	ni	na			24
25	pu			pā	pu								pu	pū	pau		pi	pu		pa	pu	po				25
26				pha																pha						26
27	bu	bo	bo	bi									bu				ba	bu	bo	be						27
28	bhi	bhi	bha	bho									bha	bha			bhi	bhi		bha	bha	bhi				28
29	ma	me		ma	mu								ma	ma	ma		ma	mā		ma	ma	ma	ma			29
30	ye	ye		ya	yū	yo							ya	yaṁ			yī	ye		ya	ya					30
31	rā	ri		rā	ri								rā	rā	ri	re	ra			ru	ru					31
32	la			la	lāḥ	lo							lā				la			la	li					32
33																										33
34	va	va	vi	vi	vīṁ								va	vi			va			va						34
35	śā			śi	śe															śa						35
36	shā			sha									sha							sha						36
37	si	saṁ		sa	sa	sa							sa	sa	saṁ		sa	saṁ		sa	sau	si	sa	saṁ		37
38	ha	hā		ha	he								ha	ha	hā	hu	hā	hā	hu	ha	hā	hā	hi	hā	hī	38
39	kshu	tre	ṇḍa	kra	kṛi	kta	ksha	kshi	gni	gṛi	chhṛi	jñā	kkha	ṇḍa	tra	tsa	kshu	gṛi	tra	kshe	gṛi	ñcha	ṭṭā	ṇḍha	ṇya	39
40	ddha	ddhya	rttha	jño	ñcha	tra	tkrā	dbhiḥ	dya	nyū	pta	pra	ddha	ddhya	pra	rttha	tre	ddha	nte	tre	tsa	tsa	dga	ddhi	dra	40
41	lla	ścha	shṭhā	pī	bhṛi	rtiḥ	rtthaḥ	rtha	rthi	ddho	rva	rma	ryyā	rvva	rva	shka	shka	sya	sya	bhrā	rmma	ryya	rsha	lla	śrī	41
42	shka	sya		rsha	vṛi	śva	śva	śya	śrī	shṭo	hya	sya	shṭhā	smim	sya	sya	sya	sya		śri	shma	sya	sya			42
43	8	9	9	1	2	3	4	5	6	7	8	9	A	4	10	10	3	8	30	2	5	7	10	50	80	43
44	10	10	20																	6	6	8	100	100		44

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The present book deals with the evolution and development of the Brahmi script in North India from c. 236 B. C. to c. 200 A. D. The Brahmi script is supposed to be the Mother Script of not only all scripts of India but also of many modern scripts of South-East Asia, Burma and Tibet etc. The period after the death of Asoka is considered to be the dark age from the view point of political history. But from the view point of palaeography this was the real formative period when increasingly greater use of writing led to a rapid evolution of the letter giving way to the traits which later developed into regional styles. The author has neither tried to standardize the script of the period nor he has followed the practice of earlier scholars to reproduce exact replicas of the letters under whatsoever circumstances they might have been engraved or written. He studies script in cultural context. This adds to the importance of his work. The Explanation Tables will be an additional advantage for those who chose to indulge in deeper research. Faithfully made plates and exhaustive bibliography may be useful to any person interested in the subject.

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